

ON THE

STUDY OF CHARACTER.



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INCLUDING

In Estimate of Phrenology.

BY

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LONDON:

PARKER, SON, AND BOURN, WEST STRAND.

1861.

LONDON :
SAVILL AND EDWARDS, PRINTERS, CHARLOS STREET,
COVENT GARDEN.

PREFACE.

THE present work is intended, if possible, to reanimate the interest in the analytical study of human character, which was considerably awakened by the attention drawn to phrenology, and which seems to have declined with the comparative neglect of that study at the present time. There is nothing more certain, than that the discriminating knowledge of individual character is a primary condition of much of the social improvement that the present age is panting for. The getting the right man into the right place is mainly a problem of the judgment of character; the mere wish to promote the fitting person is nugatory in the absence of the discrimination.

Our further progress in the knowledge of character must proceed in great part from more searching inquiries into the human mind. Phrenology, notwithstanding its onesidedness, has done good service, by showing with more emphasis than had ever been done before, that human beings are widely different in their mental tastes and aptitudes, and by affording a scheme for representing and classifying the points of character, which is in many respects an improvement upon the common mode of describing individual differences. But neither this scheme nor any other, can be set up as finality on so difficult a subject; and it is to be wished that a certain portion of the scientific intellect of our generation would devote itself to the pro-

motion of a branch of knowledge that concerns our welfare no less than astronomy, geology, or mechanics.

The course here pursued is, first, to give a critical examination of Phrenology, as being the only System of Character hitherto elaborated, and then to lay out the subject according to the plan deemed on the whole the best. This double treatment has many advantages to compensate for the want of outward symmetry. The Phrenological partition of the mind, if not accepted by all philosophers, is well known to the general public; hence any observations, tending either to confirm or to impugn it, have a chance of being readily understood. When a subject is either very extensive from the multitude of its details, or very profound from the subtlety of its principles, nothing does more for clearness than to approach it from various points of view. A system, inferior on the whole, may still bring out some portions of the subject to peculiar advantage. It requires a great and marked superiority in the latest development of any science, to dispense entirely with the consideration of the prior modes of arrangement.

The occasional repetitions that occur under the present scheme will, I think, be found principally on topics requiring an expanded illustration, whether given in one place, or in more than one.

The criticism on Phrenology, occupying about half the volume, has already appeared in *Fraser's Magazine*.

TABLE OF CONTENTS.

CHAPTER I.

THEORIES OF CHARACTER.

	PAGE
Characters of Theophrastus	I
La Bruyère	5
Charles Fourier's classification of characters	8
Samuel Bailey on the Science of Individual Character	10
John Stuart Mill on Ethology	13

CHAPTER II.

CLAIMS OF PHRENOLOGY.

Combe's criticism of previous metaphysical philosophers	12
Phrenology drew attention to the connexion of mind and material organs	16
Facts in support of this doctrine	17
Connexion of mental power with size of brain	19
Phrenological doctrine of a plurality of distinct cerebral organs, in connexion with distinct mental powers	22
Application of this to found a science of CHARACTER	24
Pretensions to supersede the previous systems of the MIND	25
Samuel Bailey on the exact bearing of the phrenological positions on our knowledge of the mind	ib.
Province of the Science of Mind	29
Not superseded, but pre-supposed, by a Science of Character	30
The Phrenological method	31
The effects of Size of brain modified by Temperament	ib.
Doctrine of Temperaments an ancient and clumsy device	32

	PAGE
Preferable plan, an examination of the Bodily Organs, <i>seriatim</i>	33
Varieties of quality exhibited by the Nerve Substance	34
Tests of a good quality of Nerve	36
Organs of the Senses	39
The Muscles. Mental consequences of a high muscular endowment	40
The Digestion. Its great importance to the mind	41
The Lungs and Respiration	<i>ib.</i>
The Heart and Circulation	<i>ib.</i>
Temperaments resulting from the comparative vigour of the several organs	42
Phrenological Divisions of the Mind	<i>ib.</i>
The Propensities and Sentiments not fundamentally dis- tinct classes	44
The true contrast lies between Natural Energy and the various Feelings or Emotions	45
The Intellectual Faculties include pure Emotions	47

CHAPTER III.

THE PROPENSITIES ACCORDING TO PHRENOLOGY.

An ultimate analysis of the mind a necessary pre-requisite of the phrenological scheme	48
Criteria of a primitive faculty	49
Bailey's conditions of an Organology of the Brain	50
THE PROPENSITIES	<i>ib.</i>
1. <i>Amativeness</i>	51
Amativeness implies both an actual and an ideal state	53
A large cerebral organ would lead to ideal continuance of the feeling	54
Proofs offered for the connexion of Amativeness with the cerebellum	55
Insufficiency of those proofs	58
How are we to deal with the observed coincidences ?	60
2. <i>Philoprogenitiveness</i>	61
Feelings that enter into parental love apart from a special source	62
A peculiar <i>maternal</i> feeling not improbable	65
Departures from the proper meaning of the sentiment	<i>ib.</i>

	PAGE
3. <i>Concentrativeness</i> . Properly a phase of our Active nature	66
4. <i>Adhesiveness</i> . Only a mode of Tender Feeling	67
Elements of the disposition to Sociability	68
5. <i>Combativeness</i> . Mr. Cox's definition 'the tendency to oppose'	72
Can the love of opposing be explained without a separate instinct?	73
Combativeness implies the possession of a weapon together with a stimulation from within	74
Great constitutional activity is therefore implied	76
Also the Sentiment of Power	77
6. <i>Destructiveness</i> . The same as the Irascible Emotion	79
Explanation of the pleasure of Malevolence	80
6A. <i>Alimentiveness</i> . Probably a distinct feeling of the mind	81
7. <i>Secretiveness</i> . Referable to known motives	82
8. <i>Acquisitiveness</i> . The desire of Property	84
The advantages of Wealth sufficient to account for its pursuit	85
9. <i>Constructiveness</i> . In the final analysis a peculiarity of the Muscular System	87

CHAPTER IV.

THE SENTIMENTS ACCORDING TO PHRENOLOGY.

The Sentiments under Phrenology compared with the Emotions under the Metaphysicians	89
10. <i>Self-esteem</i> . Includes sentiments distinct in their origin	90
Self-complacency, its analysis	ib.
Self-esteem implied under Self-complacency	92
Self-love and Selfishness different from the foregoing	93
The Love of Power also distinct. Some of its forms	94
11. <i>Love of Approbation</i> . Antithesis of Pride and Vanity	97
Self-sufficingness contrasted with dependence on the opinion of others	98
12. <i>Cautionness</i> . Criticism of Mr. Bailey	100
Analysis of Fear. How allied with Circumspection	103
Prudence. Special mode of being alive to the signs of other men's feelings	105

	PAGE
13. <i>Benevolence.</i> Goodness of heart an innate quality .	107
Adhesiveness and Benevolence not fundamentally different	108
Benevolence a form of Tender Emotion	109
Depends for its range on our capability of sympathy .	110
Self-pity	111
14. <i>Veneration.</i> The Religious Sentiment resolvable into other elements	112
The peculiar element is the feeling aroused by the aspect of power	113
Various forms of the sentiment of veneration	114
15. <i>Firmness.</i> Not the same as Will or Volition	116
Energy must be coupled with some directing influence	119
The memory of past pains and pleasures necessary to firmness	120
The peculiarity is therefore intellectual	122
16. <i>Conscientiousness.</i> Combe on the Moral Theories .	123
The conscientious man fulfils the expectations of the society he lives in	124
Sympathy an essential of conscience	126
Conscience sometimes rises above the standards of the time	127
17. <i>Hope.</i> A secondary effect, taken for the primary .	ib.
The hopeful temper a consequence of the happy temper	128
The happy and sanguine disposition may arise from temperament	130
18. <i>Wonder</i>	132
19. <i>Ideality.</i> Gall allocated an organ to poets	133
Confusion of Spurzheim's definition of Ideality	134
The susceptibility to Beauty or Fine Art the thing intended	135
Fine Art emotions a numerous group	137
Distinction between Sensibility and Productive power	138
20. <i>Wit, or Mirthfulness.</i> Character of the emotion of the ludicrous not settled	140
Combe's illustrations	142
21. <i>Imitation.</i> The talent for the stage	143

CHAPTER V.

THE INTELLECTUAL FACULTIES ACCORDING TO
PHRENOLOGY.

	PAGE
Subdivision of the Intellectual Faculties	146
23. <i>Form.</i> Designated by Gall as the faculty of the know- ledge of persons	147
Means <i>visible</i> form, and is the muscular sense of the eye	148
24. <i>Size.</i> Form and Size erroneously treated as distinct faculties	<i>ib.</i>
25. <i>Weight.</i> The organ of mechanical aptitude	150
Identity of meaning of Weight and Constructiveness	152
Improbability of the allocation of the organ	153
26. <i>Colouring.</i> The pleasure in, and discrimination of, colours	<i>ib.</i>
The true optical sensibility of the sense of sight	155
27. <i>Locality.</i> The facility of remembering places	<i>ib.</i>
An application of Form and Colour, directed by local interest	156
28. <i>Number.</i> The aptitude for Arithmetic and Algebra	<i>ib.</i>
Not an ultimate faculty of the mind	157
29. <i>Order.</i> As an ultimate susceptibility, can only mean the Sense of Symmetry to the eye	<i>ib.</i>
30. <i>Eventuality.</i> Takes cognisance of movements, or action	158
Indicates rather a weak susceptibility to Colour and Form, made up by the stimulant of motion	159
31. <i>Time.</i> Incongruity of the functions ascribed to the faculty	160
The sense of time probably a muscular discrimination	161
32. <i>Tune.</i> The musical faculty	<i>ib.</i>
33. <i>Language.</i> The organ that first suggested phrenology to Gall	162
Different powers implied under a command of lan- guage	164
22. <i>Individuality.</i> Properly the organ of Observation and Detail	165
Antithesis of observation and generalization	166
Individuality already implied in the other observing faculties	168

	PAGE
REFLECTING FACULTIES	169
34. <i>Comparison.</i> Uncertainty as to the real functions of the faculty	ib.
Might be interpreted as the Psychological Law of Similarity	171
35. <i>Causality.</i> Original designation of Gall, the Metaphysical mind	173
True meaning the generalizing, or scientific, faculty .	174
Although a genuine power, may not be an ultimate property of the mind	175
The aptitude most essential to a good teacher	176

CHAPTER VI.

THE OMISSIONS OF PHRENOLOGY.

Inadequate account of the Vocal powers	177
Deficiencies in the department of Sensation	178
Taste, Smell, and Touch proper not included	179
Some of the powers of Hearing not adverted to	180
Omissions in the Emotions ;—Pursuit or Plot-interest .	181
Sympathy not properly included	182
The Love of Truth not done justice to	183
Deficiencies in the Sensibilities to Fine Art	185
Repudiation of the intellectual power of retaining impressions generally	186
Combe's concessions on this point	187
No place allowed for the statement of Acquisitions	189

CHAPTER VII.

NATURAL, OR SPONTANEOUS ACTIVITY.

There is a tendency to action, independent of the stimulation of the feelings	191
The degrees and varieties of the inborn energy make an element of character	192
How far a property of the Muscular System	ib.
The chief source must be the central Nerve force	193
Probable conformation of the head in connexion with great energy	194

	PAGE
The energy may be rapid and temporary, or slow and persistent	195
Two ways of explaining the difference	196
How great natural energy manifests itself	198
Concurrence of a strong feeling	199
Energy connected with Endurance, Courage, and Self-reliance	<i>ib.</i>
Emotional peculiarities of the energetic character	201
A deficiency of Emotion the only general accompaniment	202
Consequences, or applications, of the Energetic Temperament	203

CHAPTER VIII.

THE EMOTIONAL TEMPERAMENT.

There is such a thing as a constitution emotional on the whole	204
A certain physical embodiment necessary to feeling or emotion	<i>ib.</i>
This mechanism common to all emotions	205
May be powerfully or feebly developed in the individual	206
Common character of the state of pleasure, or of pain, however originating	<i>ib.</i>
The vigour of the emotional mechanism a prime condition of happiness	207
Differences in bodily condition corresponding to pleasure and to pain	208
In pleasure, there is a stimulation, or exaltation, of some or all of the powers of life; in pain, the opposite	<i>ib.</i>
Proofs from the <i>agencies</i> of pleasure and pain	<i>ib.</i>
Proofs from the <i>expression</i> of the opposite states	209
Is the large emotional nature equally formed to magnify pain?	<i>ib.</i>
Answered in the negative	210
Outward demeanour characteristic of the emotional nature	211
Inward experience	212
Conduct and pursuits	214
Tendency to indolence; reasons of this	215
Sanguine disposition	<i>ib.</i>

	PAGE
Relations to Intellect ; repugnance to the <i>cold</i> in speculation	216
Charles James Fox. Contrast with Pitt	217
The Celtic Races	218

CHAPTER IX.

SPECIAL EMOTIONS, OR TASTES.

The common apparatus may be played upon with unequal blasts	219
Impulsive character.—Burns	220
<i>Special Sensibilities</i> : I. MUSCULAR EXERCISE	<i>ib.</i>
The pleasure of exercise depending chiefly on <i>nervous</i> endowment	221
The pleasure belonging to the active temperament	<i>ib.</i>
There may be passive modes	222
II. SEX. Elements of the love passion	<i>ib.</i>
Characteristics of any strong special emotion	223
III. ORGANIC SENSIBILITY. Something additional to the Five Senses	224
How an excess of this sensibility shows itself	<i>ib.</i>
Special case of Alimentary Sensibility : the Epicure	225
IV. SPECIAL SENSES. Taste and relish	226
Smell	227
Touch : its importance in the sensual temperament	<i>ib.</i>
Hearing ; Music and Elocution	<i>ib.</i>
Sight ; summary of its sensibility	228
Is there an endowment for sensation in the whole	229
V. WONDER ; the passion for the marvellous differs in individuals	230
VI. TERROR and COURAGE. Nature of the state of Fear	231
Elements of Courage. Animal, Emotional, and Intellectual courage	232
VII. TENDER EMOTION : AFFECTION. The emotional nature usually displays the tender feeling	236
Tenderness modified by Energy and Intellect	237
VIII. SELF-LOVE, SELF-ESTEEM, &c.	238
Love of approbation involved in self-complacency	<i>ib.</i>
The Vain person	239
IX. LOVE OF POWER. Allied to many other passions	240

	PAGE
Essential pleasure of power the rebound from impotence	240
Modes of the feeling	241
A feeling natural to all, but more or less subdued by the sympathies	242
Feeling caused by <i>displays</i> of power: the Religious Sentiment	243
X. IRASCIBILITY. On what peculiarities dependent	244
Characteristic element, the pleasure of Malevolence	245
How is this accounted for?	246
XI. EMOTION OF PURSUIT—PLOT-INTEREST. Probably rises and falls with Emotion generally	247
XII. SYMPATHY. Not a mere emotional peculiarity	<i>ib.</i>
The Intellect must be referred to for its explanation	248
XIII. FINE ART EMOTIONS. Problem of the Beautiful	249
Works of Fine Art touch a variety of sensibilities	250
<i>Harmony</i> the more especial effect of Art.	<i>ib.</i>
The Ludicrous: its explanation by reference to the sentiment of power	251

CHAPTER X.

INTELLECT IN GENERAL.

Distinction between Emotion and Intelligence broad, but yet the two pass into each other	254
The first property of intelligence is DISCRIMINATION	<i>ib.</i>
Sense of Agreement a mode of discrimination	255
In all the SENSES there is scope for discrimination, the Intellectual quality, as well as for pleasure and pain, the Emotional quality	<i>ib.</i>
Distinctions of character arising out of superior discrimination	256
Discrimination of Feelings of Movement. Delicacy of Hand, Voice	257
Muscular Sensibility of the Eye involved in Observation.	<i>ib.</i>
Discrimination in the SENSES. Taste and Smell	258
Touch: roughness and smoothness. Weber's observations	259
Discriminative aptitudes of the Ear. Music; Elocution; Articulation	<i>ib.</i>
Cultivation of Discriminative power. Acquired discriminations enter into every branch of culture	260

	PAGE
Second fact of Intellect. RETENTIVE property of the Mind	260
Whether Retentiveness be proportioned to Discrimination	261
It is probable that there is a quality of General Retentiveness	262
The manifestations and results of this	263
General retentiveness may be combined with local inequalities, as shown by unequal discriminative power	<i>ib.</i>
Influence of the Emotions on the retentiveness of the mind	264
Intellectual power and Emotional interest may not attach equally to the same subject	265
Association of Ideas a special case of Retentiveness	266
Circumstances favouring the growth of associations	267
Third fact of Intellect. The IDENTIFYING force, or power of Similarity	268
Retentiveness and this power do not rise and fall together	269
We assume a general Identifying force, modified by local susceptibilities and special acquisitions	270
The power of seeing Contrast not a distinct fact of character	271
Manifestations of a mind highly endowed with Intellect in general	<i>ib.</i>
Emotions of the intellectual man. Pain caused by inconsistency	272
Stimulus that this gives to the search for truth	273
The Sciences exhibit the purest embodiment of intellect	<i>ib.</i>
Intellect either disports itself, or works for ends	<i>ib.</i>
Scope afforded by Industrial operations	274
Test of the aptitude for Business	275
Examples of the intellectual forces in excess: Bacon	276
Newton	278
The negative of Intellect. Stupidity, its modes	280

CHAPTER XL

INTELLECT FOR GOOD AND EVIL—PRUDENCE

Question connected with the true nature of Firmness	281
Best to commence with the inquiry into Prudence	282

	PAGE
A good memory for Pain a fundamental fact of the Intelligence	282
So with Pleasure	<i>ib.</i>
Prudence and Imprudence explained by a reference to this	283
This memory better in some minds than others	284
The sinning and repenting character	285
The peculiarity of Steadiness of Purpose	286
Serenity of mind in the fluctuations of outward events	287
The <i>beau ideal</i> of a philosopher involves these moral attributes	288

CHAPTER XII.

INTELLECTUAL ELEMENT OF DISINTERESTEDNESS—
SYMPATHY.

An enlarged Prudence might include a great part of Conscience	290
But there is in human nature also an element of Disinterestedness	291
To what foundation in the mind is this to be referred ?	<i>ib.</i>
Tender Emotion strictly interpreted does not imply the good of others	<i>ib.</i>
Disinterestedness is, properly speaking, an anomaly of our constitution	292
It has to be reconciled with the fundamental fact of self-preservation	293
Sympathy another name for the same property	<i>ib.</i>
Implies intellectual conditions	<i>ib.</i>
We must have had some experience of the feelings that we are to sympathize with	294
We must also know the signs of feeling in others	<i>ib.</i>
Although the <i>capability</i> of sympathy be of intellectual origin, it does not follow that the disposition is so	295
There is another element required. Is that Love ?	296
Love added to intellectual capability does not explain the whole	<i>ib.</i>
Sympathy may be described as the susceptibility to the pleasures and pains of others in the form of a <i>fixed idea</i>	297

	PAGE
All the elements of the mind have a modifying influence upon it	298
The intensity and the range of the sympathies an important fact of character	299

CHAPTER XIII.

SPECIAL INTELLECTUAL ENDOWMENTS.

The special manifestations of Intellect turn upon Local Susceptibility combined with General Power	301
Special characteristics as regards Feelings of MOVEMENT	302
The SENSES, viewed intellectually	303
The Muscular Feelings and Sensations are the basis of our Knowledge	304
Difference between passive reciprocity of impressions, and reproducing them in new combinations	305

CHAPTER XIV.

TALENT.

Talent opposed to Original Genius	307
Elements of Talent in handicraft skill and artistic execution	<i>ib.</i>
The Sense of the Effect very complicated in the higher vocations, as Oratory	308
Business Talent	309
Importance of a strong feeling of the <i>end</i> , as in the Prudential aptitude	<i>ib.</i>
The ends of Business	310
The Knowledge-intellect required. Seamanship, Medicine	311
The nature of the higher Taste, or Judgment, in Art and Practice	313
Talent for Science. What are the General and Local capabilities required ?	315
The Phrenological basis of explanation	<i>ib.</i>
A susceptibility to symbolical forms not enough for science ; it applies equally to written language	316
M. Stanislas Julien, the Chinese Scholar, contrasted with Mr. George Bidder, the Arithmetician	<i>ib.</i>

	PAGE
The <i>emotional</i> interest peculiar to Science	317
Mr. Bidder's account of his Arithmetical faculty . . .	<i>ib.</i>
The chief interest of science lies in the great compre- hensiveness of scientific truths	319
This interest must be accompanied with intellectual force	320
The useful applications of science are a motive to pursue it and also the best means of verifying it	321

CHAPTER XV.

GENIUS.

Different meanings of the term 'genius'	322
Principal meaning corresponds to Originality or Invention	323
There is a love of originality for its own sake	<i>ib.</i>
The Intellectual force most concerned in original creation is Similarity, or the Identifying power	325
It is similarity obscured by diversity, that makes the difficulty, which all men are not alike able to overcome	326
Genius in the FINE ARTS	327
In some of the Arts, the explanation of genius lies most in superior <i>sensibility</i> . Music	328
Painting	<i>ib.</i>
The Actor on the Stage. Originality arising from the actor's physical personality	329
Poetry implies certain sensibilities, as in the other Arts .	330
Sensuous endowments of the Poet	331
The Identifying power. Shakspeare	332
The Genius of PRACTICE	333
The unusual sensibility to the ends	<i>ib.</i>
Cromwell. His prudential or precautionary energy . . .	335
His sympathies; the genius of Toleration	336
What he was in the region of knowledge properly so called	<i>ib.</i>
Genius in SCIENCE. Elements of the scientific mind . .	337
The Identifying power especially involved in scientific discovery	<i>ib.</i>
Examples: Universal Gravitation; Franklin's discovery of the similarity of lightning and electricity . . .	338

	PAGE
The identifying power running wild : fantastic analogies ;	
Fourier and Oken	339
The corrective is verification	<i>ib.</i>
The scientific man has also to consider the <i>end</i> , which in	
his case is Truth	<i>ib.</i>
Point of agreement of genuine science and practice . . .	340
Profound thought in all subjects implies the power of	
Identification	341
Bishop Butler	342
Contrast of Butler and Pope	343

CHAPTER I.

THEORIES OF CHARACTER.

ALTHOUGH in the literature of antiquity there is necessarily a great deal both of delineation and of analysis of Character—the one chiefly in the poets and historians, and the other in the philosophers—the only work bearing this subject expressly as its title is a treatise of THEOPHRASTUS, the pupil, friend, and literary executor of Aristotle, and a man of wide attainments, as shown by the extent of his published writings. The treatise is a short one, and contains descriptions of thirty ‘Characters,’ all implying petty vices or weaknesses. As an illustration of Athenian manners and society the work is curious and valuable, being in that respect very much what an Athenian novel descending to us might have been ; there is less of exaggeration than we find in the comedies of Aristophanes. The following are the titles of the characters described :—

Ethical Characters—Marks of Different Dispositions.

1. Dissimulation—Ironical Sneering—The Dissembler.
2. Flattery—The Flatterer.
3. The Proser.
4. Rudeness or Vulgarity.
5. Complaisance—The Man who seeks to please every one.
6. Shamelessness—The Man unscrupulous and indecent in act and speech.
7. Garrulity—The Chattering Man.

8. Story-telling—The Lying Newsmonger.
9. Meanness—The Man who takes base advantages in dealing.
10. Stinginess—The Miser.
11. Recklessness—The Man who takes pleasure in offending the tastes of others.
12. Unseasonableness—The Man who acts without regard to the proprieties of the moment.
13. Officiousness—The Man of silly pretension and fuss.
14. Stupidity.
15. Discourtesy.
16. Superstition.
17. Querulousness—The Man who finds fault with favours or well-meant proceedings.
18. Mistrust—The Man who suspects every one.
19. The Man of dirty habits or unwholesome person, which he rather exposes than hides.
20. Vexatiousness—The Man who gives annoyance on small matters.
21. Petty Vanity—The Man who makes great parade about trifles.
22. Sordid Parsimony.
23. Boastfulness.
24. Insolent Presumption.
25. Cowardice.
26. Oligarchical Pride and Contempt of the People.
27. Juvenile Habits in advanced Age.
28. Evil Speaking—The Man who slanders others.
29. Preference and sympathy for criminals and discredited men.
30. Shabbiness in avoiding outlay, or in bargain-driving.

It is obvious that there is here no attempt at a system of Human Character, even of the ethical varieties: and no attribute properly intellectual is included, excepting under

14, 'Stupidity,' (*Ἀναισθησία*). There are duplicates of the same quality, and many kinds wanting. The self-regarding disposition in money matters is set forth under several heads (9, 10, 22, 30). Rudeness or Vulgarity, Discourtesy, Shamelessness, Recklessness, Unseasonableness, Dirty Habits, make an allied circle. The modes of Pride and Vanity appear in a number of titles (13, 21, 23, 24, 26). But such obvious and everyday dispositions as Indolence, love of good living, doting fondness for objects of affection, Quarrelsomeness, Factiousness, &c., appear nowhere.

The manner of delineating the various characters will be best seen by selecting two specimens.

Character 8. Λογοποιίας—Story-telling.

'Story-telling is the fabrication of false narratives and exploits, according to the liking of the story-teller himself. This man is of such a disposition, that if he meets a friend, he immediately assumes a soft and smiling manner, and proceeds to ask, "Whence are you coming? Have you anything to tell me?" Or, "Have you anything new to say about such and such a matter?" And then he proceeds to ask, "Is not there something talked of still newer? Verily the reports abroad are favourable." Forthwith, without letting his friend answer, he exclaims—"What? Have you heard nothing? Then I expect to set before you a feast of news." Hereupon, pretending to have heard from some person actually present in the battle, a soldier, or the slave of the fifer Asteius, or the contractor Lycon (for he always has some such unimpeachable witness to appeal to), he recounts what he says they have told him, that Polysperchon and King Philip Aridaeus have defeated Cassander in battle and taken him prisoner. When he is asked whether he himself believes the story, he says that the fact is openly proclaimed in the city, the report is gaining strength, and all the details harmonize; that every

one says the same about the battle and the quantity of blood spilt in it; and that he derives farther confirmation from the change of countenance visible in the leading officials. He pretends, moreover, to have got a private hint, that these officials had kept concealed in the house a messenger from Macedonia, who had arrived four days before with the full account. Having gone through all these statements, he next—what do you think!—bursts into a natural strain of strong feeling, exclaiming, “How unlucky Cassander is! What a sad fate! Here you learn the real worth of Fortune! Still he has had his share of power!” He then adds: “But this is a secret which no one must know except yourself!” Having said so, he runs to every one in the city, recounting to each the same story.

‘To me it has always been matter of surprise, what these persons intend by their inventions. For they do not only lie, but come off without profit, or even with loss. Several of them, in recounting to a crowd of bystanders at the bath-house, have had their clothes stolen; others, while gaining land-battles and naval-battles in the portico, have been non-suited at law through absence from the court; some, while storming cities in their talk, have lost their suppers. Their occupation is a very wretched one! What portico, what workshop, what portion of the market-place is there, in which they do not pass the day, tiring out the hearers whom they thus bore to death with their lying stories!’

Character 25. Δειλίας—Cowardice.

‘Assuredly cowardice would seem to be a giving way of the soul, arising from fear. The coward is a sort of man, who, when sailing at sea, fancies the promontories to be piratical vessels. If the sea becomes troubled, he inquires whether there is any man aboard who has not been initiated in the mysteries. He lifts up his head to look around,

and then asks the steersman, whether the ship is halfway across, and what weather he thinks that Zeus promises: he tells his neighbour that he has had a dream which alarms him: he then strips and gives his tunic to his slave: he even entreats to be put ashore. When serving as a soldier on land, he calls on his comrades who are advancing to the charge, and bids them halt near him to look around, saying that it is difficult to distinguish which are the enemies. When he hears the battle-cry and sees men falling around him, he tells his neighbours that in his hurry he had forgotten to take up his sword. Then, running back to his tent, he sends forth his slave with orders to look out where the enemy are. He hides his sword under the pillow, and spends a long time pretending to search for it. Presently he sees in the tent one of his comrades brought in wounded; he runs to cheer him up, takes him under the arm, and carries him to the couch; there he tends him, sponges him over, and sits by his side to keep the flies from his wound. In short, he does everything rather than fight the enemy. Sitting thus in the tent while the trumpeter is sounding the charge, he exclaims: "Confound you, for this endless giving of the signal! Cannot you let the man get a little sleep?" Then, being himself full of blood from the wound of the other, he meets the soldiers returning from battle, and tells them how that he at his own peril has saved the life of a comrade. He introduces the fellow-citizens and fellow-tribesmen of the wounded soldier to look at him; at the same time asseverating to each of them that it was he who, with his own hands, carried the soldier to his tent.'

LA BRUYÈRE both translated the 'Characters' of Theophrastus, and composed a separate work having reference to the society of his own country and time. His '*Caractères*' made a great sensation on its first appearance, and has

ever since been esteemed one of the classics of French literature. Properly speaking, this book is a satire on mankind in general, and certain classes of men and women in particular, having that slender basis of truth which even satire requires, with the exaggerations and distortions requisite to give piquancy to this style of composition. We may compare it to the satires of Horace and Juvenal, and to a whole class of literary productions that derive interest from bringing human nature into ridicule or contempt. Like these other writers, La Bruyère brings to bear in his delineations great powers of style, expressive, terse, and epigrammatic phraseology, to which his popularity must be in great measure ascribed. He satirizes men as a whole, women as a whole, the great, the wealthy, the court, the town, 'la mode,' the wits, &c.; interspersing now and then a remark less discreditable to mankind than the general strain of his attack. Selection in a short space is not easy, and the following must not be taken as perfect representative specimens of the entire work.

'Why impute to men that women are not instructed? By what laws, by what edicts, by what rescripts, have they forbidden them to open their eyes and read, to retain what they have read, and to give an account of it either in their conversation or their writings? Is it not rather the fact that women have established themselves in this habit of knowing nothing, either from the weakness of their constitutions, or from the inactivity of their minds, or from the care of their beauty, or from a kind of frivolity that hinders them from following continuous study, or from the talent and genius that they have for finger accomplishments merely, or from the distractions caused by domestic details, or from a natural distaste for laborious and serious things, or from a curiosity altogether different from that which satisfies the intellect, or from tastes of another sort than that of exercising their memory? But to whatever

cause men are indebted for this ignorance in women, they may consider themselves happy that those who already govern them in so many ways, have this advantage the less over them.'

'If science and wisdom are united in one subject, I think no more of sex, I admire; and if you tell me that a sensible woman hardly cares to be scientific, or that a scientific woman is hardly sensible, you have already forgotten what you have been reading, that women are only turned back from scientific studies by certain defects: understand, then, that the less they have of these defects the more sensible they will be, and that thus a sensible woman will be only all the fitter for becoming scientific, or that a scientific woman, being such because she has been able to overcome so many defects, is only all the more sensible.'—*Des Femmes*.

'Men speak of themselves in such a manner as only to acknowledge their small defects, and moreover those which imply in them great talents and qualities. Thus, they complain of their want of memory, contented nevertheless, with their great sense and good judgment; they receive the reproach of absence of mind and dreaminess, as if the reputation of having a fine intellect was thereby accorded them; they say of themselves that they are awkward and can do nothing with their hands, much consoled for the loss of these minor talents by their wits and those gifts of the mind that all the world acknowledges in them; they make the avowal of their idleness in terms which imply always the fact of their disinterestedness, and that they are cured of ambition; they do not blush at their uncleanness, it is solely negligence in small matters, and supposes in them application only to solid and essential things.'

'We seek our happiness out of ourselves, and in the opinion of men whom we know to be flatterers, insincere, without justice, full of envy, caprice, and prevarication: what folly!'

'A great soul is above injury, injustice, pain, and ridicule; and would be invulnerable if it was above compassion.'—*De l'Homme*.

'In a bad man there is nothing of which a good man may be made; praise his views and his projects, admire his conduct, exaggerate the cleverness with which he uses the most direct and the shortest means to achieve his ends; if his ends are bad, prudence has no part in them, and where prudence is wanting, find greatness if you can.'—*Des Jugements*.

'This same religion which men defend with heat and zeal against those who hold contrary views, they alter to their own mind by peculiar sentiments; they add to or they take away from it a thousand often essential things, as they see fit, and they remain firm and unpersuadable in this form which they have given it. Thus, to speak popularly, we may say of a whole nation that it lives under the same belief, and that it has but one religion; but to be exact, it would be truer to say, that it has many beliefs, and that nearly every member of it has his own special one.'—*Des Esprits Forts*.

Thus, these two authors, having adopted 'Character' as a subject, nevertheless, are very far from pretending to a Philosophy of Character. Indeed, previous to Phrenology, no one ever appears to have risen to the conception of such a philosophy. Reserving the Phrenological scheme for a full examination, I will here allude to some more recent attempts to lay out the ground to be studied in the department of the Human Character.

CHARLES FOURIER, the well-known socialist, has based his socialistic system upon an analysis of the Passions, and a classification of characters thence derived. His method, however, instead of being a profound examination of the ultimate elements of the human mind, is the employment

of fanciful analogies to embody our feelings and tendencies. Referring to the defects of previous attempts to classify the passions, he says:—'Which of them are right? None. Here is the secret of their vacillations; they are ignorant of the fact that the passions are distributed like a tree, which beginning from the trunk or focus, gives subdivisions progressive in number.' Consequently he considers that he has the merit of indicating a division that can be carried out, in the strict Natural History plan of successive subdivisions. These he carries out as follows:—1st, classes; 2nd, orders; 3rd, genera; 4th, species; 5th, varieties; 6th, diminutives; 7th, tenuities, minimities. He has in his classification 3 classes, 12 orders, 32 genera, 134 species, 404 varieties, besides the main trunk. The trunk comprehending the whole is 'unityism in harmonic development;' but along with this there is a trunk root, 'egoism in subversive development.' The three *classes* are—first, the group of the Senses (five in number); secondly, the Affectives (four in number); thirdly, the Distributives (three in number). The individual members of these groups amount to twelve, which are his Orders, and the heads of his detailed exposition. The Senses he recognises according to the usual plan, but his manner of handling and discussing them is quite original. The four Affectives are Friendship, Love, Familism, Ambition; the three Distributives are Emulation (the love of intrigue, the 'Cabalist'), Alternation (the love of variety, the 'papillon,' or butterfly), Cumulation (the aggregation of many pleasures in one). These twelve orders of passions make a complete series, because the musical notes are twelve in number; accordingly he assigns to each a note, or a place in the musical scale. Fourier had the same fascination for numbers that possessed the Pythagoreans of old, and many moderns likewise, as, for example, Kepler. After elucidating, according to his own quaint and peculiar fashion, these various

Orders, he discusses what he calls the Potential Scale of Characters, in other words, the marking of degrees and combinations, essential to the theoretical perfection of any scheme. He doubles his 404 Varieties, after adding one to take in the main trunk, and thus makes 810 characters, each provided with the twelve radical passions, but more or less subject to the ascendant influence of one or several. 'I call *dominant* the passion that holds the rudder of a character. The dominant of the miser Harpagon is his ambition, of which avarice is a shade or specific development.' Now, as every dominant has a variety of shades which must be discriminated and named, we have a gamut of tonics, each shade being the *tonic* passion. A character may have several dominants, but the greater number of persons have only one. He assigns 576 out of 810 as of this last kind, and calls them the *passionate populace*. Those with two dominants, called *digynes*, are less numerous; those with three, *trigynes*, still less frequent, and so on. The highest is the *pentagyne*, and is only one solitary individual of the whole number. There are also, however, some *polymixts*, or ambiguous characters who have no dominants, but only *ralliants*, or passions that rule occasionally.

The whole method of Fourier's composition is a profusion of analogies and analogical phrases of his own coining, quite useless for the explanation of a subject, but presenting often very quaint combinations. He has the peculiarity of an original and independent turn of thinking in the regions of speculation where few men have ever deviated from the received commonplaces, as in Ethics and Society. His views are now made accessible in the translation by the Rev. John Reynell Morell, of his work on the 'Passions of the Human Soul.'

MR. SAMUEL BAILEY has aptly indicated the position of

the present subject as a branch of the whole Science of Man, or Anthropology; and has also given what he considers the natural distribution of the subject, as the following extract will show:—

‘In reference to the division concerning Individual or Personal Character, I may remark that it would be advantageous on several accounts to keep it distinct from Psychology, which, when confined to its proper objects, is chiefly occupied in describing, classifying, and bringing under general laws, the phenomena of consciousness common to all mankind, and deals with Individual Character only incidentally and briefly—too briefly for the importance of the subject.

‘The expediency of making the latter a separate department of inquiry, will be more readily admitted if we consider that character is constituted not by peculiar qualities, but chiefly by the proportion in which mental properties common to the individual with the rest of his species are manifested.

‘The elements of a man’s character may be stated to be mainly the following:—

‘I. The predominance of certain feelings, propensities, and desires in his mind over others which, although existing there, are less marked, such as fear, hope, resentment, the love of approbation, conscientiousness, curiosity, benevolence, ambition, and so on; all of which may be found united in infinitely varying proportions.

‘II. His being able to perform certain intellectual operations better than other operations, such as remembering better than imagining or reasoning, and conversely reasoning better than remembering.

‘III. His being able to perform these and other intellectual operations much better in respect to certain objects than in respect to other objects. Thus one man will recollect, imagine, and reason about mechanical matters

more readily than he will perform those operations in the case of mental phenomena; and another will remember mathematical figures, and draw conclusions respecting them, with more facility than he will perform similar acts in reference to the incidents of common life, to music, or to poetry.

‘One important ingredient in the aptitude for particular arts or sciences, is being able to form clear and steady mental representations of the objects in which they deal, when such objects are not present. To grasp them firmly in conception is manifestly indispensable both to devising new combinations and to reasoning on their results whilst yet untried.*

‘IV. The energy or feebleness of his volitions—his acts of willing. The observation is anything but new, that we frequently see men of strong intellect combined with weak powers of volition, and *vice versa*. Coleridge was a notorious example of the former.

‘V. His physical endowments, or the qualities of his bodily constitution, the perpetual consciousness of which (not to mention other effects) enters largely into the composition of his character. Of this remark Lord Byron may be cited as an illustration. The contrast between the mental effects of a consciousness of great muscular vigour on the one hand, and muscular feebleness on the other, has been well drawn by Cabanis.’—(*Letters on the Human Mind*, ii. 265.)

While concurring in the main in the distribution here chalked out, I should be disposed, as will be afterwards seen, very nearly to invert the order of topics. The PHYSICAL CONSTITUTION, placed last, would seem more naturally to come first; then would follow the WILL, ex-

* ‘It is the want of this power of clear conception which, as it appears to me, leads writers into mixed metaphors, as well as other both rhetorical and logical incongruities.’

plained as the natural energy of the disposition, without any regard, in the outset at least, to the force of the motives that stimulate and guide it, which motives are chiefly the FEELINGS intended to be included under Mr. Bailey's first head. A full detail of these would succeed to the consideration of what is peculiar to the region of the Will. And the varieties of INTELLIGENCE, mentioned under the second and third divisions, would be discussed last of all. Whether anything would be gained by keeping up those two divisions,—namely, on the one hand, the *operations* of the intellect, such as Remembering, Reasoning, Imagining; and on the other, the *subjects* operated upon, as Mathematical Figures, Mechanical Constructions, Natural History, Poetry, the incidents of Common Life,—I do not here inquire. But this is not the only place where we shall derive benefit from Mr. Bailey's clear and sagacious remarks.

MR. JOHN STUART MILL, in his *System of Logic*, has indicated as a field of important inquiry the subject called by him Ethology, or the laws that govern the formation of character, individual and national. This supposes that the analysis and classification of characters are already made, and has for its object to determine the effects of *circumstances* in bringing about the varieties actually occurring. Ethology is the *science* which corresponds to the *art* of Education, in the widest sense of the term, including the formation of national or collective character, as well as individual. Such a science cannot be said to exist at the present time; so that the Educator's art is an exclusively empirical one.

CHAPTER II.

CLAIMS OF PHRENOLOGY.

PHRENOLOGY is no longer a subject of party heat or violent altercation. Men can support or impugn it with the composure becoming a purely scientific controversy. We are now able to form a measured estimate of its pretension, allowing for what good we think it has done, and rebutting what we may consider the overstrained pretensions of its advocates. More than one criticism can be referred to of this strictly judicial character. The number of points relating to the human mind that have been raised by Gall and his followers is so great that one might, in discussing them, go over nearly the whole debateable ground of mental science. It was their intention that this should be so, for in their subject they profess to include everything that belongs to a philosophy of human nature. They came into competition with a philosophy already existing, which they drew upon to a certain extent, and then wholly superseded.

The following passage from the chief English expounder of phrenology expresses the position taken with reference to the previous metaphysical philosophers :—

‘If, however, we inquire what progress has hitherto been made by metaphysicians in ascertaining the primitive mental powers, and in rendering the philosophy of men interesting and practically useful to persons of ordinary understandings, we shall find a deficiency that is truly deplorable. From the days of Aristotle to the present time, the most powerful intellects have been directed with the most persevering industry to this department of science ;

and system after system has flourished, fallen, and been forgotten in rapid and melancholy succession. To confine our attention to modern times:—Dr. Reid overturned the philosophy of Locke and Hume; Mr. Stewart, while he illustrated Reid, yet differed from him in many important particulars; and recently Dr. Thomas Brown has attacked, with powerful eloquence and philosophical profundity the fabric of Stewart, which totters to its fall. The very existence of the most common and familiar faculties of the mind is debated among these philosophers.’

And further :

‘A system of mental philosophy pretending to be true ought not only to unfold the simple elements of thought and of feeling; but to enable us to discover *in what proportions* they are combined in different individuals. In chemical science one combination of elementary ingredients produces a medicine of sovereign virtue in removing pain; another combination of the same materials, but differing in their relative proportions, brings forth a mortal poison. In human nature, also, one combination of faculties may produce the midnight murderer and thief—another, a Franklin, a Howard, or a Fry, glowing with charity to man.’

‘In thus surveying the philosophy of the human mind, as at present exhibited to us in the writings of philosophers, we perceive—*first*, that no account is given of the influence of the material organs on the mental powers; and that the progress of the mind from youth to age, and the phenomena of sleep, dreaming, idiocy, and insanity, are left unexplained or unaccounted for by any principles admitted in their systems; *secondly*, that the existence and functions of some of the most important primitive faculties are still in dispute; and *thirdly*, that no light whatever has been thrown on the nature and effects of combinations of the primitive powers, in different degrees of relative proportion.’
—(Combe’s *System of Phrenology*, 5th edition, pp. 59, 62.)

Phrenology is thus set up, in contradistinction to the pre-existing systems of mind, as rendering a full account, for the first time, of the influence of the brain upon mental life ; as affording new lights in the very perplexing inquiry as to the *primitive* or elementary faculties and feelings ; and as constituting a theory of human character. It is one object of the following pages to consider how far these pretensions have been realized.

And first, as to the connexion between mind and the material organs, and more especially the brain. It is a fact not to be disputed that the systems of Reid, Stewart, Brown, and indeed of metaphysical writers generally, took little or no account of the nervous system and its connexion with our mental manifestations. It is also equally true that, notwithstanding occasional references on the part of physiologists and others to the connexion of mind with bodily members, the phrenologists were the first to bring forward in a prominent manner, and to defend against assailants of every kind, the doctrine that the mind is essentially dependent, in all its manifestations, on the brain, being more vigorous as that is more fully developed, and dwindling under cerebral deficiency or disease. They have marshalled an array of facts in support of this position so formidable and cogent as almost to silence opposition. When they began their labours, it was not, as now, 'admitted as the result of all observations, and a fact on which nearly all physiologists are agreed, that the brain is the part of the body by means of which all the powers or faculties of the mind are manifested.'

If there be any subject connected with humanity more interesting than another, it is this no longer doubtful relationship, which lies at the foundation of the theory of mind, and is vitally involved in the practical questions of our well-being. The considerations and facts adduced in its favour ought to be among the most widely diffused portions of

human knowledge; and the researches undertaken for throwing new lights on the matter deserve the most marked attention and encouragement. It is requisite not merely to establish a general connexion between mind and brain, but to follow out, if possible, the precise relationship of the different feelings, faculties, and manifestations, to the special parts or divisions of the brain, and to the other members that bear a part in the same circle of activity. On the one hand, Physiology, experimenting on the properties of nerves and nerve centres; and on the other, mental science (whether called Psychology or Phrenology) collecting, classifying, describing, and analysing the facts of mind—the sensations, emotions, volitions, and the processes of intelligence—should co-operate in tracing home the alliance between the two aspects of our being. By such means alone can we dispose of any doubts that may still be entertained as to whether the *whole* of our mental nature is thus closely knit with bodily organs; for it will then be seen, by the method of residues, whether there be any phenomena that do not depend upon that support. It is not only incompetent, but wholly unphilosophical even in attempt, to resolve mind into brain, nerve, and muscle; the things are radically distinct in their nature, as heat is different from gravity, or light from solidity; the true aim of the inquirer is to find the laws of their relationship, as we trace the laws connecting heat and light with solid, liquid, and gaseous matter.

To take a few of the illustrations supplied by the author of the *System of Phrenology*.

‘The fact that the mental phenomena of which we are conscious are the result of mind and brain acting together, is further established by the effects of swooning, of compression of the brain, and of sleep. In profound sleep consciousness is entirely suspended; this fact is explicable on the principle of the organ of the mind being then in a state of repose; but it is altogether inconsistent with the

idea of the immaterial principle, or the mind itself, being capable of acting independently of the brain; for if this were the case, it could never be interrupted by any material cause. In a swoon, blood is rapidly withdrawn from the brain, and consciousness is for the moment obliterated. So also, where part of the brain has been laid bare by any injury inflicted on the skull, it has been found that consciousness could be suspended at the pleasure of the surgeon, by merely pressing on the brain with his fingers, and that it could be restored by withdrawing the pressure. A few such cases may be cited:—

‘A man named Jones, recorded by Sir Astley Cooper, was deprived of consciousness by being wounded in the head, while on board a vessel in the Mediterranean. In this state of insensibility he remained for several months at Gibraltar, whence he was transmitted to Deptford, and subsequently to St. Thomas’s Hospital, London. Mr. Cline, the surgeon, found a portion of the skull depressed, trepanned him, and removed the depressed part of the bone. Three hours after this operation he sat up in bed, sensation and volition returned, and in four days he was able to get up and converse. The last circumstance he remembered was the capture of a prize in the Mediterranean thirteen months before.’

‘A writer in the *Medico-Chirurgical Review* mentions that many years ago he had “frequent opportunities of witnessing similar phenomena in a robust young man, who lost a considerable portion of his skull by an accident which had almost proved mortal. When excited by pain, fear, or anger, his brain protruded greatly, so as sometimes to disturb the dressings, which were necessarily applied loosely; and it throbbed tumultuously, in accordance with the arterial pulsations.”’—(Combe, vol. i. pp. 13-18.)

These cases merely carry out into more decided prominence the well-known fact that mental fatigue, exhaustion,

and disease are felt in the head, as indigestion is felt in the stomach. It is further ascertained that the products of mental waste are increased when the mind is more than ordinarily exerted. The kidneys are mainly concerned in removing from the blood the saline and other matters arising from the waste of nervous substance; and their secretions are greatly augmented during times of mental excitement; while chemical analysis proves that the products on such occasions are derived from the nervous tissue.

Another leading argument which the phrenologists have been especially concerned to develop and press home, is the connexion of mental power with the size of the brain. After showing by a number of parallels derived from the other animal organs that size is a usual concomitant of power (in the bones, muscles, lungs, liver, organs of sense, nerves of sense and motion, &c.), Combe adduces the following facts touching on the main question.

‘*First*—The brain of a child is small, and its mind weak, compared with the brain and mental faculties of an adult.

‘*Secondly*—Small size in the brain is invariably a cause of idiocy. Phrenologists have in vain called upon their opponents to produce a single instance of the mind being manifested vigorously by a very small brain.

‘Dr. Gall has laid it down as a fact to which there is no exception, that where the brain is so small that the horizontal circumference of the head does not exceed thirteen or fourteen inches, idiocy is the necessary consequence. “Complete intelligence,” he remarks, “is absolutely impossible with so small a brain; in such cases idiocy, more or less complete, invariably occurs, and to this rule no exception ever has been, or ever will be found.” In the *Journal of the Phrenological Society of Paris* for April, 1835, Dr. Voisin reports observations made upon the idiots under his

care at the Parisian Hospital of Incurables, in order to verify the assertion of Gall in the passage above quoted; and mentions that he found it substantiated by every one of his cases. In the lowest class of idiots, where the intellectual manifestations were null, the horizontal circumference, taken a little higher than the orbit, varied from eleven to thirteen inches, while the distance from the root of the nose backwards over the top of the head to the occipital spine was only between eight and nine inches. When the size varied from fourteen to seventeen inches of horizontal measurement, and eleven or twelve in the other direction, glimpses of feelings and random intellectual perceptions were observable, but without any power of attention or fixity of ideas. Lastly, when the first measurement extended to eighteen or nineteen inches, although the head was still small, the intellectual manifestations were regular enough, but deficient in intensity. In a full-sized head, the first measurement is equal to twenty-two inches, and the second to about fourteen inches.'

'Deficiency of size in the brain is not, however, the only cause of idiocy. A brain may be large and diseased, and mental imbecility may arise from the disease; but, as above shown, although disease be absent, if the size be very deficient, idiocy will invariably occur.

'*Thirdly*—Men who have been remarkable, not for mere cleverness, but for great force of character, such as Buonaparte, Franklin, and Burns, have had heads of unusual magnitude.

'*Fourthly*—It is an ascertained fact, that nations in whom the brain is large possess so great a mental superiority over those in whom it is small, that they conquer and oppress them at pleasure. The Hindoo brain, for example, is considerably smaller than the European, and it is well known that a few thousands of Europeans have subdued and keep in subjection millions of Hindoos. The brain of

the aboriginal American, also, is smaller than the European, and the same result has been exemplified in that quarter of the world.'

In the Caucasian or Indo-European race, the capacity of the head or cranium ranges from 75 to 109 cubic inches; while in the Mongolian race, to which the Chinese belong, the range is 69 to 93 inches.—(Keith Johnston's *Physical Atlas*.)

'All other circumstances being alike,' says Dr. Sharpey, 'the size of the brain appears to bear a general relation to the mental power of the individual,—although instances occur in which this rule is not applicable. The brain of Cuvier weighed upwards of 64 oz., and that of the late Dr. Abercrombie about 63 oz. avoirdupois. On the other hand, the brain in idiots is remarkably small. In three idiots, whose ages were sixteen, forty, and fifty years, Tiedemann found the weight of their respective brains to be 19 $\frac{3}{4}$ oz., 25 $\frac{3}{4}$ oz., 22 $\frac{1}{2}$ oz.; and Dr. Sims records the case of a female idiot, twelve years old, whose brain weighed 27 oz. The weight of the human brain is taken at about three pounds (48 oz.)'—(Quain's *Anatomy*, 5th edit., p. 671.)

The conclusion that the brain taken in the gross is indispensable to the workings of the mind, is not without important practical bearings. The treatment of insanity and mental derangement is now regulated on this principle. But it is desirable to go farther, and specify, if we can, the more particular relations of the two classes of phenomena. It would be interesting to know if the different modes of the mental manifestations—feeling, will, intelligence—have different seats or portions of the cerebral mass assigned to them. It is also curious to inquire *how* the brain is affected during mental processes. Moreover, there are other parts of the animal system involved in the more energetic emotions; the features, limbs, and

the body at large, are active under excitement, and their participation ought therefore manifestly to be included among the material accompaniments of mind.

The position taken up by the phrenologists on this point is well known. They hold that there is a plurality of faculties in the mind, and a corresponding plurality of organs in the cerebral organization. They consider that the one fact—the plurality of mental faculties, susceptibilities, and endowments, which can scarcely be disputed—is a strong presumption of the other. To be angry is so different from casting up a sum in arithmetic, that we can hardly suppose the two different functions otherwise than differently located in the brain. Then we find cases of partial idiocy and partial insanity, implying defect or derangement of a single faculty, the rest being in an average condition. So, they remark that dreaming is a partial wakefulness of the faculties, some being active while the rest are suspended, pointing to a similar conclusion. Also the experience of partial injuries of the brain, which are said to have occurred without injuring the intellectual faculties, implies that all the parts are not equally concerned in all the functions. Then, the brain itself is a very complicated organ, or rather an assemblage of distinct organs. The spinal cord, medulla oblongata, pons varolii, cerebellum, corpora quadrigemina, optici thalami, and corpora striata, are all different from the convoluted mass marking the great body of the hemispheres in man; this convoluted mass is very manifestly broken by one fissure, the Sylvian; and although in the main there is a continuity in the convolutions adverse to the notion of this part being clearly partitioned to suit a plurality of faculties, yet a phrenological eye sees still room for the distinct allocation of separate regions to separate manifestations of feeling or intelligence. ‘It is admitted,’ says Combe, ‘that strong lines of demarcation between the

organs are not seen in the brain ; but those persons who have either seen Dr. Spurzheim dissect the brain, or have minutely attended to its impressions on the skull, will support me in testifying, that the *forms* of the organs are distinguishable, and that the mapping out is founded in nature. To bring this to the test, the student has only to observe the appearance of any particular organ in a state of large development, the surrounding organs being small: the *form* will then be distinctly visible.'—(*System*, vol. ii. p. 402.)

After all, however, the main proof of this position consists in that series of observations commenced by Gall, and continued by others, connecting strong specific manifestations of character with fulness or size of particular parts of the head. This is the distinguishing doctrine of phrenology, to which the foregoing doctrine, common to physiologists generally, is merely subsidiary. Gall having been first struck with the coincidence in the case of Language, followed it out in other faculties, and in the course of a laborious life, devoted to observation with this view, ascertained the mental attributes connected with nearly every part of the brain, excluding of course the base, which is not accessible. His disciple, Spurzheim, completed the list ; and although there are some differences among phrenologists in some points, and certain organs are still left as doubtful, we are now presented with a tolerably full enumeration of the feelings, faculties, and propensities of the human mind, with their several locations in the cerebral mass.

Granting all this to be well authenticated, the obvious and valuable consequence is a means of ascertaining the human character (and even the lower animals are not excluded from the application of the method) by the form and size of the head, independently of those observations as to people's actual conduct hitherto relied upon, with perhaps

the addition of a certain slight reference to physiognomy. It is the introduction of a new instrument of *diagnosis*, like the stethoscope, or chemical analysis, in medicine. Moreover, there is implied in it a scheme of the constituent elements of character which must be presumed to be accurate, being, so to speak, founded in nature, so that we have thus for the first time a SCIENCE OF CHARACTER. No previous theorists, in laying out the map of the human mind, could pretend to such a confirmation of the genuineness of their lines of demarcation as the phrenologists find in the coincidence between their analysis and the divisions of the brain. Other mental philosophers, looking at the distinct nature of fear and affection, of memory and invention, of a musical ear and a delicate smell, classed them as separate and primary elements of our being; but if they could have found that each had its own compartment of the brain allotted to it, they would have considered that the analysis was clenched and put beyond all further question. Here, then, is the vantage ground of the phrenologist. It is this consideration that seems to justify him in saying that his science is really the first analysis of the mind itself that has anything like a basis to go upon. Phrenology, therefore, is even greater in what it implies than in its more immediate and obvious application to deciphering men's characters by their heads.

But if so very much hangs upon the discovery of Gall, the evidence for his affirmations needs to be all the more irrefragable. The coincidence between organ and faculty ought to be established throughout by the severest and most reliable proofs. If there had been a pre-existing analysis so conclusive as to satisfy and conciliate all philosophers, to which the organology of the brain adapted itself, there would have been less to establish, and perhaps a smaller amount of confirmation might have sufficed in the case. Seeing, however, that the organology has revolu-

tionized the analysis itself, we must exact a rigid authentication of its details. The phrenologists make comparatively little appeal to the method of the older philosophers in analysing the mind—the self-consciousness of the individual inquirer: they occasionally advert to this method, but they consider that their science has provided a more excellent way. They have brought to a rapid and certain conclusion the tedious and unproductive labours of the other inquirers. Upon a method of a diagnosis they have built a science of character, and on that a SCIENCE OF MIND.

The adherents of the older psychology are thus boldly challenged to surrender their citadel to the new invader. That they have not done so ere now is attributed to various motives, different from conscientious adherence to truth. But the following passages from Mr. Samuel Bailey's critique on Phrenology will show that there is still something to be said for the older method, even after the advent of the new:—

‘At the outset it may be admitted that the connexion thus shown to exist between the size of a certain part of the skull, and an excessive manifestation (say) of fear might be usefully employed in aiding us to regulate our intercourse with our fellow-men, to select individuals for particular offices, to choose professions for young people, to shape appropriately our instructions and discipline in the education of children; and, in a word, to appreciate the character of both ourselves and others.

‘These are doubtless exceedingly useful results in matters collaterally related to mental philosophy; but it is plain that the connexion between the emotion and the particular conformation of the skull or brain, although it may thus be serviceable as an indication of character, does not enlighten us at all as to the nature of the feeling, its various modifications, the circumstances which generate, ferment, prolong, and allay it; the conduct to which it leads; how it affects

other states of consciousness, such as reasoning and imagination, and is affected by them, nor yet how it operates on the nerves and other tissues of the body. All these things—what the emotion is, its distinctive peculiarities, how it arises, subsides, and departs, and its moral and physical results—must be gathered from our own conscious experience, assisted as to some of the particulars mentioned by external observation directed to the conduct of others, as well as to physiological phenomena. It is knowledge which never could be gained by measuring or manipulating or scrutinizing the cranium, or anatomizing the brain. The fact of the connexion may throw light on a man's character as to the possession of cautiousness or the want of it, as to his constitutional susceptibility to the class of feelings allied to it or implied in it, but none as to the nature of the quality or the feelings. The philosophy of fear—an emotion which has played so important a part in government, in social conduct, and especially in religious inculcation, since the first records of the human race, and the effects of which, when excited for moral purposes, are as yet very imperfectly understood—would not be advanced by it a single step. The whole of the assistance rendered by the establishment of the connexion in question resolves itself, I repeat, both in this and in all other instances, into the circumstance of enabling us, from an external physical indication, to form a rough estimate of the probable degree in which the mental characteristic indicated is naturally possessed.

‘It may be added, that the establishment of the organ of cautiousness, as it is styled, serves to corroborate most completely the previously ascertained fact, that timidity is not the product of external circumstances, but a constitutional quality, varying in intensity and excitability in different individuals; and it serves also to show the futility of

expecting that an appeal to it for any purpose will have a uniform result in all cases.

‘On the most favourable view of the whole matter, the utmost which can be said on the side of phrenology is, that it presents us with an assemblage of organs indicating, to a limited extent, and in a manner more or less vague and indeterminate, the mental qualities of their possessor ; but as to what these qualities are (which is purely an affair of consciousness), the organs themselves can obviously give us no information whatever. The latter are simply outward physical signs, empirically established, of inward mental characteristics.

‘Our knowledge of the so-called faculties, feelings, and propensities, is primarily constituted by the recollection of various states of consciousness through which we have passed, combined in some instances with our observation of the conduct of others ; and these mental states we arrange and classify under convenient names. It is only after they are known and classified that it is possible to connect them empirically with any external appearances as indications of their being possessed ; and these external indications, although they may be established by the most indubitable proofs, cannot in any way modify or add to our knowledge of those things which they indicate.

‘This description of phrenology undoubtedly circumscribes its province within very narrow bounds, and is widely at variance with the views of those philosophers who regard it as presenting us with a tolerably complete philosophy of mind.

‘The endeavour to establish a connexion between cranial developments and mental characteristics, has undoubtedly been serviceable not only in raising the importance of the nervous structure as an object of investigation, but in bringing to light many curious facts in human nature ; and

in collecting a great number and variety of grounds for concluding that there are original differences, frequently of an extraordinary kind, in the constitutional qualities of individuals and races.

‘Although it is true that all these facts might have been observed without reference to the brain, or its configuration, or its exterior covering, still to phrenology as actually prosecuted must be awarded the merit of strongly directing general attention to many of them ; and also of hastening, confirming, and disseminating views regarding the constitution of human nature which, notwithstanding they were once warmly contested, and are yet not universally received, the philosophical observer, without such assistance, would doubtless have finally reached.

‘A century or half a century ago, it seems to have been a prevailing notion that men are not naturally adapted by mental constitution to one pursuit more than to another ; but that when any such peculiar aptitude is evinced, it is due to the direction given by the mind to casual events or surrounding circumstances. In unison with this view, it was expressly maintained by Dr. Johnson, in a well-known passage, that the true genius is a mind of large general powers accidentally determined to a particular direction.

‘Phrenology, while failing in its more ambitious attempts, has greatly assisted in dissipating such erroneous views of human nature, and by the instances which, partly in the mistaken estimates of its own proper scope, it has industriously brought together, of extraordinary aptitude for music, mechanical invention, calculation, language-learning, and other pursuits, as well as of peculiar proneness to certain emotions and sentiments, it has widely spread the conviction that there is an infinite variety in the degree and combination of constitutional qualities by which men are adapted to as great a variety of functions

and fortunes.'—(*Letters on the Human Mind*, second series, pp. 206-215.)

The foregoing extracts express with remarkable justness and precision the exact relationship of phrenology to the science of human nature as conducted by philosophers of the other school; indicating clearly, what it is the aim of the present discussion to bring out in greater fulness of detail, the necessity of a distinct examination of the mind itself, by the methods of self-consciousness, observation, and physiology combined, in order to constitute a mental philosophy. The affirmation to be proved is that phrenology, as hitherto exhibited, is at best but a *science of character*, and NOT a *science of mind*, as pretended; and that even as a science of character it is essentially dependent upon the degree of improvement realized by the science of mind *independently* cultivated.

The SCIENCE OF MIND, properly so called, unfolds the mechanism of our common mental constitution. Adverting but slightly in the first instance to the differences between one man and another, it endeavours to give a full account of the internal mechanism that we all possess alike—of the sensations and emotions, intellectual faculties and volitions, of which we are every one of us conscious. By an effort of self-examination, the primary instrument of the psychological inquirer, we discriminate these, one from the rest, classify those that resemble, and find out which of them appear simple and which compound. We pay special attention to the distinction between the primitive and the acquired powers, and study with minuteness and care the processes of education and acquisition. We look at the laws whereby sensations are transformed into ideas, and thoughts give rise to other thoughts; in other words, the operations of Intelligence have a chapter devoted to themselves. The obscure pro-

cesses of the Will can be divined only by laborious introspection; the observation of other minds (children and animals especially) although also an important instrument, needs a constant reference to self as the interpreter of what is indicated. Thus the elements of Feeling, and Intelligence, and Activity, common to us all, are laid out in systematic detail; and thereby we pave the way for that study of their various degrees of development in individual minds, constituting individual characters. Of course, while engaged in the complicated problem of the conscious states—the laws and processes—of *universal* mind, we are liable to drop out of view the *individual* differences, perhaps even to overlook them so far as to misstate their amount; and may hence incur just rebuke on that score from those who look specially at the neglected side of the case. Still, that part of the work has to be well done at the peril of leaving everything undone.

It will require a detailed examination of the phrenological analysis of mind and character, in order that the justness of these general affirmations may be evident. It will then be seen that the special method of phrenology—the reference to the development of the cranium—cannot dispense with the other method, and has in part failed from the very attempt to dispense with it. One may fully concede the propriety of constructing a system, or science, of the elements and laws of CHARACTER, while denying that this should swamp the science of MIND as treated by the recognised methods. We go farther, and declare that the subject of the estimation of character will be dependent for its advancement in a great measure on the progress made in the other direction.

To proceed, then, to the main question: How have the phrenologists analysed and laid out the entire compass of

our mental susceptibility and our various faculties, and what are the merits and defects of their method?

Their principal position is, that the different energies of the mind are associated with distinct portions of the cerebral substance, and vary in degree as those are large or small. There are, however, certain circumstances that modify the effects of mere Size—what are they? They are, to quote from Combe, ‘constitution, health, exercise, excitement from without, and in some cases the mutual influence of the organs.’

‘The question naturally presents itself, Do we possess any index to constitutional qualities of brain?

‘There are some constitutional qualities which can be judged of only’ by knowing the qualities of the stock, or race, from which the individual under examination is descended? I have observed a certain feebleness of the brain, indicating itself by weakness of mind, without derangement, in some individuals born in India of an English father and Hindoo mother. The tinge of colour and the form of the features indicate this descent. I have noticed feebleness and sometimes irregularity of action in the brains of individuals, not insane, but who belonged to a family in which insanity abounded. I do not know any external physical indication of this condition. The *Temperaments* indicate to a certain extent important constitutional qualities. There are four temperaments, accompanied by different degrees of strength and activity in the brain—the *lymphatic*, the *sanguine*, the *bilious* or *fibrous*, and the *nervous*. The temperaments are supposed to depend upon the constitution of the particular systems of the body; the brain and nerves being predominantly active from constitutional causes, seem to produce the nervous temperament; the lungs, heart, and bloodvessels being constitutionally predominant, to give rise to the sanguine; the muscular and fibrous systems to the bilious; and the glands and

assimilating organs to the lymphatic.'—(*System*, vol. i. p. 49.)

Without dwelling upon the remark suggested by this passage, that already we have a large disturbing element brought in as modifying the inferences to be made from size, being at the same time only one of several elements (health, exercise, excitement, and mutual influence of organs are still to be allowed for) difficult to appreciate precisely as to their influence—it deserves to be considered whether this scheme of temperaments is the simplest and most direct mode of stating the characteristics of the various bodily organs participating in, or in any way affecting, the mental manifestations. Would it not be better in each case to describe, as well as can be ascertained, the peculiar condition of every one of these organs *seriatim*, drawing the proper inference, without inquiring which of the four temperaments the case falls under? There seems to be here a needless retention of an ancient and clumsy device.

It was supposed by the physicians of antiquity that there were four primary component elements of the human body, namely, *blood*, *phlegm*, and the two kinds of *bile*, *yellow* and *black*, and the preponderance of one or other of those in different persons produced the different temperaments. A constitution superabounding in blood was of the *sanguine* temperament; if phlegm was in excess, the *phlegmatic* was manifested; the yellow bile gave the *choleric*, and the black bile the *melancholic* or *atrabilious* temperament. Dr. Gregory was the first to add to these the *nervous* temperament, which the phrenologists included in their classification. The doctrine of temperaments was applied to explain, or at least to express, the tendencies to different diseases. The sanguine or full-blooded constitution is more liable to severe inflammatory disorders, but can sustain the application of bloodletting

and other strong remedies, while the phlegmatic constitution is liable to such illnesses as grow out of low vital energy. The suitability of individuals to different modes of life was also indicated by temperament. The choleric character disposed men to be precipitate, impetuous, and courageous; the melancholic was identified with timidity, caution, deliberation, and suspense of judgment.

If we take the chief organs of the human system as described by physiologists, and ascertain the precise character or diagnosis of each in any individual, the entire delineation will be the constitution of that individual according to the spirit in which the temperaments were first conceived, but with an improvement in the style of procedure corresponding to the more advanced state of our knowledge. The physician, on examining a patient for the first time, looks not only at the organ diseased, but at the organs generally, so as to form an opinion of the constitution as a whole. When a young man presents himself for the Indian service, all his organs are examined with reference to his power of enduring a tropical climate. The medical referee of an Assurance office makes a thorough diagnosis of a person perfectly healthy, in order to judge of the power of vitality apparently belonging to the aggregate that makes up the constitution. The stomach, the lungs, the heart, the muscular development, are all passed in review, and an opinion formed of their soundness and power of endurance. It may be that none of these examinations comes up to the full estimate of the temperament for every purpose, but they might be so conducted as to leave nothing undescribed that was within reach of investigation. The range and instrumentality of medical diagnosis at the present time are known to be remarkably extensive, and might be used for giving certificates of temperament to the healthy, as well as for probing disease. Coupled with an examination, by phrenology or otherwise,

of mental development, they would indicate precisely the strength and weakness of the individual with reference to every function or situation of life: by their means every one might follow out with strictness the celebrated and seldom complied-with Delphic injunction.

Such being the case, let us review the leading organs of our framework, remarking on their different forms of development, not with an eye to pathology or medicine, but as regards their influence upon Mental Manifestations, properly so called.

Instead of following the order of an anatomical or physiological treatise, which begins with the bones, joints, and muscles, we shall commence with the organ most concerned with mind, having that for its peculiar function.

It is admitted, then, by phrenologists as well as by others, that the NERVE SUBSTANCE, besides varying in quantity, may differ in quality in different individuals, it being found that two brains of nearly equal size yet manifest very unequal power. There is nothing improbable in this, looking at the analogy of the other organs. We sometimes find a man of small muscle much stronger and more enduring than one of larger make. Some of the most muscular men on record were little in their general build. Jack Sheppard is an example. Of course, the general rule must be that the highest vigour is a result of quantity and quality combined; but as to nerve, there are instances of very small heads surpassing in power the average size. And, to refer to the lower animals, when we look at the mental development of the ants, their aptitude for a complicated social existence, and consider how very little nervous matter there is in their organization, we can hardly avoid the conclusion that the quality of their brains, or ganglia, is very much superior to the nervous substance in man or in animals generally. The largest ganglion in the ant is only a fraction of a pin's head in size, and yet with this they are capable

of acting in an organized community and exercising forethought to a surprising degree.*

How, then, shall we mark and characterize quality of nerve as distinct from quantity? In speaking of the nervous temperament, Combe uses the following phraseology: It is 'recognised by fine thin hair, thin skin, small thin muscles, quickness in muscular motion, paleness of countenance, and often delicate health. The whole nervous system, including the brain, is predominantly active and energetic, and the mental manifestations are proportionally vivacious and powerful.' A portrait of a highly nervous person is given to correspond with this description. But both the language and the picture are overdone. They express not simply the properties belonging to a fine quality of brain, but a nervous system feeding itself at the expense of all the other organs of the body. The subject of the pictured representation has besides a very large intellectual head. What we want is to know the difference of manifestation of two heads very much alike in size, but obviously differing in quality, and the better of the two not operating to the ruin of all the rest of the bodily functions. It is an assured fact that the brain contributes to the vitality of the stomach, lungs, heart, &c., as well as sustains the proper mental manifestations; now a brain of good quality, not called upon for more than its due in respect of mind, ought to contribute to organic vigour; at all events, we are not in the first instance to infer a powerful brain from a weak circulation, or enfeebled muscles. We know it

* Virgil, in concluding his account of the various operations of the bees, in the fourth book of the *Georgics*, gives a poetic rendering of this thought. 'To the bees belong a part of the divine mind and draughts of the ether:'

'His quidam signis, atque hæc exempla secuti,
Esse apibus partem divinæ mentis, et haustus
Ætherios, dixere.'

to be a frequent result of a great determination of vital force to the brain to impoverish the other vitalities, and we must be prepared to allow for this at the proper stage ; but we should begin by stating the appearances irrespective of that particular consequence.

The chief point of quality, properly so called, is that hinted at by Combe in the phrase 'quickness in muscular motion.' Brains agreeing in size, may differ in the profuseness of nervous energy discharged into the muscles, which will be apparent by energy and rapidity of movement, and great tension of the features and organs of expression. A higher quality of nerve will manifest to a higher degree the nervous property of originating and sustaining motive power ; and the indication of this will be the liveliness of the movements, gestures, and tones of the voice. But there may be two different interpretations put upon those appearances ; they may be considered either as implying a greater abundance of the nervous discharge, or a greater tendency to temporary excitement, followed by exhaustion. We can judge according to the state of the facts which is the true explanation. Both are referable to the quality of the substance, apart from quantity ; the one is strength, the other weakness. A really powerful brain discharges, in a constant stream, greater energy than a less powerful ; everything done at the spur of a mental stimulus is done with increased ardour and demonstration. The actions are more determined, the expression more animated. Farther, we may have energy with or without great quickness, although quickness naturally follows as a consequence of internal momentum. Whether quickness be a pure result of energetic discharges, or be a special mode of energy, there can be no mistaking the indications of it. The rate at which nerve currents pass along the nerves has been ascertained to be about two hundred feet a second. This determines the rapidity of voluntary movements, or

the interval between a stimulation of the will and the corresponding execution, as when we lose our balance and recover it in time, or catch something falling. Now it is very likely, indeed almost certain, that the rate of transmission of nervous power varies in individuals, and in the same individual at different periods of life. The quickness of the young and slowness of the old may be referred to this circumstance. The bodily strength and endurance depend partly on the proper power of the muscles, and partly on the stimulation received from the nerve centres ; and when great *efforts* are put forth the nerves are what are principally drawn upon. A strong nervous system can put forth more of this effort when occasion requires it, and can thereby sustain the energies for a longer time after the muscles have reached the point of exhaustion. It is on those occasions, when we are called upon to make protracted exertions at the instance of motives applied to the mind, that a superior quality of brain makes itself apparent, although then too the result may come of quantity. Hence we can always extort more work in a push from a well-endowed cerebral system than from the average run of human beings. In the field of battle it is well known what nerve counts for, muscle being on a par. We are also familiar with the difference between a sudden and temporary discharge, the effect of excitability, and a more enduring flow ; which last, however, may be owing to size, while the other is more indicative of quality. Observation is never at a loss to discriminate the peculiarity in question when two persons unequally constituted in that respect are placed together. The one executes with quickness, emphasis, and decision, what the other does languidly or not at all. In an encounter the one is easily superior, unless there be great odds in everything else.

What we have now sketched is perhaps the only mark of *quality* that can be decisively tested, and the only mode

by which we can, with assurance, separate it from *quantity*. The delicateness of susceptibility that makes one person more than usually open to *every kind of impression*, may likewise be looked upon as an endowment of quality, but the phrenologists would ascribe it in most instances to quantity. They would say that the existence of large organs of the special faculties, where the susceptibilities lie, is the proper way of accounting for it. Large tune makes the person sensitive to music, large colour to pictures, and so on. Nevertheless, they are forced to admit a 'temperament of genius' in those cases where more than ordinary power is manifested, the mere fulness of the corresponding organ not amounting to an adequate explanation. This is merely another way of putting forward quality as an element to be admitted into the calculation. Newton had good organs of number, causality, &c.; but they bore no proportion to his genius in the departments of mathematics and physics. The supposition of a special delicacy of fibre in such instances is, however, not free from difficulties. For all analogy leads us to suppose that the nervous substance in the same system is likely to be of a uniform quality: we find this to be so in the other tissues, the muscles, the skin, &c. Now genius is often very partial, as the phrenologists remark in their argument for a plurality of organs and faculties: so that we should have to assume an elevated quality of nerve for some parts of the brain and an ordinary quality for the rest. The peculiarity discussed in the preceding paragraph is supposed to be general for all the manifestations of mind, but the one now considered would have to be limited, to suit the limitation of the individual's specialities. Notwithstanding the dilemma thus arising, it is but reasonable to suppose that there are great variations in the quality of nerve besides that which shows itself conspicuously by intensity of manifestations generally; and these variations of quality are likely to be concerned

even in the specialities of genius, however little we may be able to explain the apparent contradiction of supposing two qualities of material in the same head.

Theoretical completeness would require us to advert to the organs of the SENSES in connexion with the brain. Each organ may have a character peculiar to itself, owing partly, but not wholly, to the related nerves and nerve centres. There is in all of them a surface for receiving the impressions in the first instance, varying for the different senses according to the nature of the action that takes place. In the Eye we have a lens and black pigment, which may not be of the same quality in all constitutions. Yet if the lens is transparent enough, and sufficiently well shaped, to give distinct images, this is all that we need, so that any peculiar brilliancy of the eye is to be esteemed merely as a beauty in the person, and not as aiding vision. It is not in our power to say whether any part of the intellectual faculties founded in vision depends on varieties of the pigment; we can only presume that this, like every other tissue known to us, is various in different subjects; the consequences of such variation being unknown. The same remarks are applicable to the surfaces and mechanism of the Ear; we cannot tell how far the differences in regard to delicacy of hearing and fine discrimination of sound, in music or in speech, may be due to the organ, and how far they are owing to the nerves and brain. Neither can we make out distinctions of quality in the surfaces of Smell or Taste in the human subject. In dogs, we can understand the effect of a very great extension of the smelling surface in the nose, but we are not able to observe inequalities in this respect among human beings. It might be imagined that the Skin, the organ of Touch, in contrast to the others, is peculiarly open to observation and liable to great differences of texture; still it is doubtful if any of those observed differences of delicacy apply in the matter

of mental susceptibility or discrimination. A fine skin, like a clear eye, charms the beholder, but there is no proof that it confers tactual endowment. The cause of this may be partly in the skin (although to a greater extent in the number of the nerve filaments distributed in it), but there is no outward appearance that can be referred to as the indication of it.

Passing now from the chief organ of mind, on which so little satisfaction is attainable, we may remark on the **MUSCLES** and their allied members. The bony and muscular system may be large, and of good quality in addition, constituting the athletic frame. A very high quality of muscle in a small or middling stature may be classed under the same head. Besides fitting the individual for bodily toil and endurance, there are specific consequences of a mental kind resulting from such a constitution. In the first place, the power of endurance is extended to the mind in so far as mental exertion involves the muscles, which happens in such avocations as military command, teaching, speaking, public business, experimental research, natural history, and many other things; while bodily exercise, unattended with fatigue, is the best known sedative for cerebral excitement, as well as being a principal means of increasing the vital energy of the system at large. But in the second place, the highly muscular constitution gives a direction to the tastes and pursuits, by disposing for the more physically active kinds of employment, and for such recreations as involve muscular expenditure. The phrenologists have no organ for the love of field sports and out-of-door exercises; an obvious omission on their part; but although the taste for these must be in part cerebral, it also goes very naturally along with a robust muscular frame. Undoubtedly, therefore, the muscular development of an individual is a proper subject of notice in giving a diagnosis even of the mental peculiarities, not to speak of the large share of im-

portance attaching to it, when we embrace in our view the whole man. The bilious or fibrous temperament of the phrenologists points to it in a good state of development. Still we must never lose sight of the fact that, like any other organ in excess, the muscles may draw nourishment to themselves at the expense of the brain, and that, according to the average constitution of human beings, there is generally some weakness accompanying the unusual vigour of any one of the functions.

The DIGESTION deserves special mention in its bearing on the present subject. A good digestive system is the basis of vigour in the other parts, including the brain. It sustains mental application, and seems to be a principal condition of good animal spirits, and the hearty joyous temperament. As in the foregoing instance, too, it naturally (although not necessarily) leads to the love of good eating, and must therefore be taken along with the alimentative organ in determining the epicurean propensity. As regards the power of mental labour, a good digestion is even of more importance than good muscles.

Nor must we omit an estimate of the LUNGS, which when large and of good texture contribute in a decisive manner to the general vigour, by supplying the oxygen, or aerial food, requisite for the assimilation of the solids and liquids. A broad, deep chest almost of itself makes a powerful frame. The opposite is a source of one of the prevailing weaknesses of the human species. But weak chest is notoriously different from weak stomach in not depressing the mental tone or the animal spirits, being in fact compatible with the sanguine and cheerful temper.

The action of the HEART is still farther removed from immediate influence on the mind, although determining no less surely the vigour and duration of life. Overstrained cerebral activity preys sometimes on the stomach, at other times on the lungs, and with still more insidious steps upon

the heart, and needs to be resisted by great natural soundness as regards them all.

What we have said respecting these several organs in a high condition implies the opposite cases. The temperament, according to the original meaning of the term, is the precise mixture or combination belonging to each individual, which must present an unlimited variety. There may be—one vigorous, and all the rest weak; one vigorous, the rest average; two vigorous, and the others weak; none preponderating; and all good, all middling, or all bad, and so on through endless combinations. A certain limited selection might be made by an observant physiologist to represent the most usual varieties; but even that limited number would not be so few as four or five; we can hardly suppose less than a dozen or a score. The *bilious* or *fibrous* temperament of phrenology ('firm flesh, energy of action,' &c.) is evidently a combination of good nerve and good muscle. The *sanguine*, or full-blooded constitution, a well-marked variety, may be referred to stomach, lungs, heart and vascular system, all in vigorous condition. The blood in itself is not an organ; the quality of its contents depends on the several organic functions of digestion, respiration, &c. The *lymphatic* temperament ('languid vital actions, brain weak, movements slow, with weakness and slowness in the circulation,' &c.) implies everything feeble, and corresponds to the character of the worst fed of the Irish.

Leaving these preliminary subjects, we proceed to the consideration of the several faculties and organs as laid out in the phrenological scheme. But first, as to the general division of the faculties. This was the work, not of Gall, but of Spurzheim. Following the twofold or binary method of subdividing the mind that prevailed until lately, he constitutes two primary orders or groups—FEELINGS and INTELLECT, or *affective* and *intellectual* faculties. By a

farther subdivision of the first—the feelings—into PROPENSITIES and SENTIMENTS, he comes in the end to the threefold classification—Propensities, Sentiments, and Intellect. ‘He applies the name *propensities* to indicate internal impulses, which invite only to certain actions ; and *sentiments* to designate other feelings, not limited to inclination alone, but which have an emotion of a peculiar kind super-added. Acquisitiveness, for example, is a mere impulse to acquire ; Veneration gives a tendency to worship, accompanied by a peculiar emotion, which latter quality is the reason of its being denominated a sentiment.’

While the most usual method of dividing the mental faculties has been into Intellect, and all that is not Intellect, the modes of handling the second half show that some farther subdivision is called for. Designated by the older writers sometimes the Will, and sometimes the Active Powers, Dr. Thomas Brown gave this half the name of the Emotions, adverting particularly to the more *passive* element of feeling, which in the other division seems to be submerged, but running into the other extreme and sinking the element of *action*, also a part of the case. So by common consent the writers at the present day start at once with the threefold division into EMOTION or Feeling, VOLITION or Will, and INTELLECT, although they may not be quite agreed. as to the exact boundaries of the several regions. SENSATION, although an exceedingly convenient subdivision in the systematic handling of the mind, is not an ultimate element, but falls partly under Emotion and partly under Intellect. Emotion includes our pleasures, pains, and modes of excitement, considered as merely felt, without being acted on ; Volition expresses the actions resulting from those feelings—a distinct group of phenomena ; while Intellect is understood as having reference to knowledge in every possible mode of it. A sweet odour, a burst of wonder, a thrill of affection, are feelings ; a

course of action entered on to procure or continue these gratifications, or avoid the opposite pains, typifies volition.

According to the above explanation of Spurzheim's three orders, the Sentiments would appear to correspond to the emotions, and the Propensities to will or volition; but if we look at the detail there is a certain confusion. We find, in fact, that there is no vital difference between the propensities and sentiments as enumerated, nor does the one class include, at the same time that the others exclude, the operation of the will.

The propensities are Amativeness, Philoprogenitiveness, Concentrativeness, Adhesiveness, Combaticiveness, Destructiveness, Alimentiveness, Love of Life, Secretiveness, Acquisitiveness, Constructiveness.

The sentiments are Self-Esteem, Love of Approbation, Cautiousness, Benevolence, Veneration, Firmness, Conscientiousness, Hope, Wonder, Ideality, Wit, Imitation.

Now, although the members of the former class indicate a somewhat more energetic activity than the latter, yet it is not true that the one contain Activity mainly, and the other Sentiment or Emotion mainly. Take, for example, Philoprogenitiveness, which is a propensity, and Benevolence, which is a sentiment. Both imply strong feelings or emotions, of the pleasurable kind, when gratified, of the opposite when thwarted. The presence and companionship of children, or one's offspring, their well-being and pursuits, affect the mind with a grateful thrill; than which nothing can more properly be styled emotion or sentiment, just as the presence of an object on whom we bestow kindness stirs the sentiment of benevolence. In both cases, too, there is mixed up the propensity to action. The parent is prompted by parental feeling to labour for the happiness of the child; and benevolence is nothing if not active. So with Adhesiveness, or friendship; there is both a grateful sentiment, or emotion, and an active disposition to put our-

selves in the way of enjoying it by courting friends and performing friendly services. There is neither more nor less implied in Veneration, one of the so-called sentiments; which gives an agreeable emotion, and prompts us to find out worthy objects and pay them reverence. The same with Amativeness in the one class, and Love of Approbation and Wonder in the other, and so on. There is in all such a genuine emotional excitement, or characteristic state of feeling, viewed as feeling, which may show itself without any accompanying action, but which also operates more or less in stimulating our active pursuits. Pure emotion, in the sense of never bringing on action, is not found in either list. On the other hand, however, there are several designations that would seem to imply pure volition, or action, without special reference to any one feeling in particular; but then, be it remarked, such designations occur in both lists. These are principally Concentrativeness and Constructiveness among the propensities, and Imitation and Firmness among the sentiments. If these four were in one group, and occurred together in the same quarter of the head, we should have something approaching to a region of pure activity, not allied with any sentiment in particular, but open to the stimulation of all the sentiments. It is the last of the four, Firmness, which seems most nearly to express pure will; and if there be any certainty in the observations tending to localize this quality in the hinder part of the crown of the head, that might be said to be the region of volitional energy.

It is a fact of animal nature that the active energy of the system, available for all purposes—in other words, under the stimulation of the feelings generally—is found to be unequally manifested in different men and animals. The horse and the cow do not owe their unequal activity to different degrees of strength of the emotions, but rather to frames differently constituted for action apart from the

emotions. We find one man doing with vigour everything he takes up, another languid over the pursuits that touch his strongest feelings. For a mere trifle the one is on the alert, for a life stake the other cannot be driven to make a push. *Quidquid vult, valde vult*: 'whatever this man wills, he wills strongly,' is the description of the active part of the system in a high degree of development. The emotions being strong at the same time, give additional force to the movements; but the individual's acts would not want in energy, although those were weak.

Thus while the modes of FEELING—the pleasures, pains, emotions, sentiments, affections, passions—are *many*, the WILL may be considered as *one*. We may regard it as the collective muscular machinery of the system controlled by a certain portion of the cerebrum; having a character peculiar to itself, disposed to operate of its own accord, but practically at the service of whatever feelings are uppermost in the mind. If this view be correct, there ought to be in the development of the head a region of Will and a region of the various Emotions—the one indivisible, the other containing many subdivisions. For, although there are a variety of phenomena, or different aspects of Volition, constituting different subjects of consideration—such, for example, as desire, conflict of motives, deliberation, resolution, effort, ability and inability, belief—they would not properly occupy distinct centres, but would be merely the various modes and circumstances under which the one power shows itself. We should then convert the phrenological propensities and sentiments into one common group of emotions, abstraction being made of those that imply pure Activity, which last, if they could be concentrated into one locality, would represent the Will. There is nothing in the views of phrenologists essentially repugnant to this amendment. They admit that the present classification is only provisional. Combe says—'It appears

impossible to arrive at a correct classification until all the organs, and also the primitive faculty or ultimate function of each, shall be definitely ascertained, which is not at present the case.' The foregoing doctrine of the multiplicity of emotion and the unity of volition is the view of the present writer, expounded at great length in the treatise on the *Emotions and the Will*. In the detailed criticism of the organs, and in the succeeding expositions, it will prominently reappear.

As regards the group of the Intellectual faculties—which are the five Senses, Individuality, Form, Size, Weight, Colouring, Locality, Number, Order, Eventuality, Time, Tune, Language, Comparison, and Causality—there is a decided mixture of the emotional with the purely intellectual. Time and Tune are at the foundation, not only of musical gifts and acquirements, which may be placed under intellect, but also of the pleasures of music; the same with Form and Colouring, as regards the pictorial arts. Now, the enjoyment we derive from music or painting is as much emotional as wonder or the mirthful feeling, included under the sentiments. Thus, whatever may be the predominating feature of the several divisions, emotion is everywhere. The connexion of feeling with intellect, however, is to be judged differently from the connexion with will. The discussion of the boundaries of these two elements is of a very subtle nature, and not to be undertaken in a chapter of preliminary generalities. Perhaps it will appear that the mixing up of those two in the same organs is not an argument against the soundness of this part of the phrenological system.

CHAPTER III.

THE PROPENSITIES, ACCORDING TO PHRENOLOGY.

IN the foregoing chapter I have considered a number of the preliminary questions of phrenology. The relation of the brain to the mind was adverted to ; the precise position of the phrenological discoveries, supposing them to be valid with reference to the general body of mental philosophy, was also dwelt upon ; the subject of the temperaments was shown to want revision ; and lastly, the general classification of the faculties was brought under review.

In proceeding now to criticise in order the thirty-five or thirty-eight faculties as laid out in the phrenological chart, the main object is to discover how far these are well-defined and separate principles of our nature, how far they are *ultimate* principles, and whether, taken as a whole, they render a complete account of all the known powers belonging to our mental constitution. Unless a faculty be definite in itself and distinct from every other, and be at the same time one of the primitive components of the mind, the observations alleged in favour of its connexion with a specific locality in the brain are nugatory. If a certain kind of observations can be produced in favour of a position that is either vague or inconsistent, such experience is not to be trusted, even for what is otherwise tenable.

It is admitted by phrenologists that an ultimate analysis of the mind is a necessary pre-requisite to their scheme. They believe they have, with a few exceptions, ascertained the primitive faculties. They lay down the following

criteria on this point. A faculty is admitted as primitive which exists in one animal and not in another—which varies in the two sexes in the same species—which is not proportionate to the other faculties of the same individual—which does not manifest itself simultaneously with the other faculties, that is, which appears or disappears earlier in life than the others—which may act or rest singly—which may be propagated distinctly to offspring—and which may singly preserve its proper state of health or disease. No objection can be made to any of those tests; but singularly enough the test most easy of application is left out—namely, our own consciousness of agreement or disagreement of character among our several feelings and mental states. We may all know when two feelings agree and when they do not: a nicer and more practised attention can say whether several different states contain a common element, or are compounds of some simpler states. We feel that the mental manifestations designated by ‘wonder’ and ‘admiration’ are very much alike, the one being apparently a simple emotion (wonder), the other compounded of this and another element (feeling of some excellence). We can judge, independently of any of the above criteria, whether Amativeness and Self-esteem are distinct, or whether they have an element in common. Referring to our own consciousness, we are made aware that they are as distinct as any two emotional states can well be, and therefore we set them down at once as separate feelings. In the anxiety to admit as little as possible of the method of the metaphysical philosophers, and to make mind a science of observation purely, Spurzheim turned his back on the most universally accessible court of appeal in this matter. But, for my own part, I shall not wait for the laborious process implied in the use of his criteria, in order to judge of the simple or compound nature of the faculties enumerated in his system.

Mr. Bailey has laid down certain conditions requisite to the establishment of an organology of the brain, which appear to be almost self-evident. He says:

'1. In order to establish an organ there must be a definite class of mental phenomena proved by appropriate evidence to be connected with it.

'2. After the organ has been established, it cannot be assumed to indicate anything not comprehended in the class of mental phenomena with which it has been proved by evidence to be connected, and, reciprocally, nothing else can be assigned to it.

'3. In proportion as the class of mental phenomena is general or comprehensive, the establishment of a corresponding organ by the requisite evidence will be difficult, and require multiplied observations; while the value of an organ as an indication will necessarily decrease, till it may be finally annihilated.'

Mr. Bailey is of opinion that these maxims have been violated in various instances, and I may afterwards quote some of his criticisms. But we shall make no further delay at present, but proceed at once to the consideration of the organs in detail.

THE PROPENSITIES.

Combe makes a preliminary remark on the whole genus of Propensities, to the effect that the faculties coming under it '*do not form ideas, or procure knowledge*: their sole function is to produce a propensity of a specific kind.' They are also 'common to man with the lower animals.' Already a very nice question is started. Whether there can be propensities in the sense of the phrenologists, without something of the nature of ideas, is a very doubtful point, if indeed it be not wholly incorrect, unless on the supposition of arbitrarily restricting the meaning of the term 'idea.' But of this afterwards.

1. *Amativeness*.—This is well known as the organ of sexual love. Its participation is necessary to the feeling of sex, and in the instances of its being highly developed, that feeling is very intense, and occupies a large place in the thoughts and pursuits. 'The individual becomes distinguished from his fellows by the predominance of his amorous propensities. In all his vacant moments his mind dwells on objects related to this faculty, and the gratification of it is the most important object of his thoughts.'

It will be admitted on all hands that this at least is a distinct and well-defined ingredient of our nature, and probably no one thinks of resolving it into anything more general or fundamental than itself. We may therefore assume it to be one of the primitive 'faculties.' Yet we have to take some precautions in the wording of it, so as not to mix up the suggestions of other faculties in the account of its manifestations. Every strong feeling of the mind drags the other powers more or less into its service; and it is a matter of some consequence to lay down clearly what is the naked character of each, in so far as it is possible to strip it of all extraneous accompaniments.

In the present instance we are safe in supposing that a strong amative propensity means, first, as above defined, a strong feeling, or intense excitement in the gratification of sexual love; and, secondly, a certain *persistence of the feeling*, or lively recollection, anticipation, and imagination of that excitement. A feeling intense at the moment of actual enjoyment, but without persistence, could not possibly amount to a propensity: 'out of sight out of mind' implies a very inferior quality of emotion. But if so, what becomes of the doctrine that the faculties of the present class do not form 'ideas'? It is true that we do not obtain from them our notions of the so-called material world, but they give us abiding experiences of our own mental world,

and in so doing involve that very property of mind that gives the other—namely, the property by which mental impressions persist after the fact. The essential quality of intelligence belongs to both cases, and hence a reason for our being unable to make the same broad distinction between intelligence and the feelings as between the feelings and the will. To remember our pleasures and pains is as much a fact of memory—as much an intellectual power—as to remember a narrative, a description, or an argument; and we may succeed or fail in either, according to our mental ability. This does not obliterate the proper distinction between the Emotions and the Intellectual Powers, the distinction between pleasure and pain on the one hand and knowledge on the other; for our impressions of touch, hearing, and sight have a pre-eminent value as representing far more than themselves. They constitute that extensive machinery of symbols which resumes the phenomena of the world, and enables us from one thing to infer a great many others; consequently, it is comparatively of more value to have a stock of them than to retain feelings that have no second meanings. But the great fact of *persistency of impression*, a distinguishing property of the intellect, runs through everything: there can be neither emotion nor volition without it. It may be more powerfully manifested in some things than it is in others—more in colour than in form, more in the higher senses than in the emotions, or the opposite—and a corresponding stamp is put upon the individual character. To have a vivid and faithful remembrance of pleasure and pain, good and evil, is the basis of a well-balanced moral agency; whereas he that has a strong recollection of pleasure and a feeble retention of pain is likely to run heedlessly into mischief. To call these memories of states of emotion ‘ideas’ may seem a stretch of language: this word, being borrowed originally from sight, has scarcely been allowed to pass out of the sphere of

the senses. We are allowed to have ideas of taste, smell, touch, hearing, sight, but hardly of amative or tender emotion apart from the persons concerned. Yet the intellectual process, or the plastic power of the mind, that enables us to keep up or revive the thrill of an excitement no longer stimulated by its original cause, is exactly the same in all. No one would say that we have not at least *the memory* of emotional states, which is all that we have of the letters of the alphabet or the streets of the town that we live in. Not only is this recollection a fact, but a most pertinent one in the discussion of shades and differences of character, as we shall very soon be convinced of. When we are considering the superiority of one brain to another as regards a certain organ, while a sentiment in correspondence therewith is manifested by the mind, we look particularly to the persistence, or, in Combe's language, the *predominance*, of that sentiment—its *ideal* life as well as its life in actuality. It is in all likelihood the cerebral hemispheres that locate this property; and when strongly manifested, we must seek for the explanation in that quarter.

It must be held, then, that strong Amativeness means both intense present excitement and ideal endurance of the emotion. We must go farther in the present instance; for this feeling has a variety of powerful manifestations, pleasurable and painful, previous to its full gratification. These must be taken into the account as much as the other. The processes at work in the organs of sex originate a series of feelings even in a state of strict celibacy, and the strength or weakness of those are likewise an indication of the degree of development of the amorous propensity. These feelings, also, have partly an ideal and partly an actual existence.

It is imperatively requisite, in the explanation of character, to separate the present intensity of a pleasure or pain from the persistent recollection of it. Frequently the

two go together. An ear highly susceptible to musical concords will also remember them better than one less susceptible ; a great pleasure in colour will probably imply a good memory for colour. The cerebral centres need a certain degree of development in order to the one property, and this goes far towards conferring the other property. But there are many facts that show that the two do not always coincide. There are cases of strong present sensibility with little tenacity. Sometimes our strongest pleasures are those that most want the renewal of the actual stimulation, while things that we remember easily do not stir us emotionally. A man's delight may be in music or paintings, and his memory in language or science. We find both an alliance, and an inverse relationship, between the Emotional and the Intellectual susceptibilities of our nature ; and the philosophy of character demands that each of the two facts should be set in a clear light. In the phrenological systems the distinction has been generally overlooked. The more important of the two properties is the intellectual ; for by means of it the ideal life is maintained ; and no emotion can be looked upon as powerfully manifested, or as existing in the form of a 'propensity,' without having a strong ideal persistence.

If, therefore, we are to assign a certain part of the brain to a given propensity, it stands to reason that the most important element of the feeling, its endurance after the fact, should also find its support in that same portion of the cerebral substance. Other parts of the brain may sustain the recollection of the *objects* of the feeling,—the persons that excite sexual love,—because these objects appeal to the sensibilities of colour, form, size, movement, &c. ; but the state itself, as remembered in its own character, cannot with propriety be referred to a distant or foreign centre. A large organ of amativeness will give large recollections of the corresponding states of mind.

The distinction thus drawn runs through all the susceptibilities of our nature, and hence the importance of elucidating it fully and once for all. We must now advert to the phrenological evidence for placing the seat of the amative propensity in the cerebellum.

'It is impossible,' says Spurzheim, 'to unite a greater number of proofs in demonstration of any natural truth, than may be presented to determine the function of the cerebellum;' and in this Combe agrees with him. 'Those who have not read Dr. Gall's section on this organ, can form no adequate conception of the force of the evidence which he has collected.'

Now it may be fully conceded that this propensity, unlike many of the others in the phrenological classification, is clear, unambiguous, and unmistakeable, and is on that account a good subject for being observed in connexion with a particular organ. But, on the other hand, the very great reserve that people have in making known their peculiarities on this head, is a peculiar disadvantage in the way of an observer, reducing him to the study of a small number of obtrusive instances. If persons were as free to confess their amative feelings as they are to make known their ear for music or their taste for scenery, we should be in a different position as regards the proof or disproof of the alleged function of the cerebellum. It is true that Gall made his observations in a country where much less reserve existed than with us in England, and hence the greater copiousness of his array of examples.

But that the coincidence between the amative propensity and the cerebellum amounts to demonstration, cannot be conceded. George Combe, in answering the objection to phrenology, grounded on the absence of lines of demarcation in the brain itself corresponding to the division of the organs, quotes the organ of amativeness as at least one example of distinctness of boundary. This, however, proves

too much, from its being a unique instance. All the other organs are included in the convoluted hemispheres of the brain, and the seat of the present propensity would have been more probable from analogy, if it too had lain within the same region as the other propensities. The cerebellum is not only a separate organ, but so peculiar in its structure, that we have a difficulty in supposing it merely an addition or supplement to the hemispheres, taking a portion of their duty as an emotional centre. There is no sufficient distinction of character between Amativeness and Philoprogenitiveness, or Adhesiveness, to imply a totally distinct structure as the material medium of its manifestation. There is analogically, to say the least, an improbability in the case.

Still, the want of analogy may be overcome by an appeal to positive facts. Accordingly, Gall and his followers have produced many very striking facts in support of the coincidence in question. The effects of lesion or disease in the organ have been shown in repeated instances to be accompanied with disturbance of the propensity. Unusual force of the feeling has been noted as conjoined with large cerebellum; and conversely, a feeble manifestation has occurred with small dimensions of the other. These observations are valuable so far as they go. They are so many cases of coincidence which we must admit to have occurred, supposing the testimony unimpeachable; and we know of no grounds for impeaching Gall's veracity as an observer. Nevertheless, when a general conclusion of so sweeping a character is to be drawn from those facts, we must demur to their sufficiency. They are too few, many of them are too little sifted; and too little attention has been bestowed upon the apparent want of coincidence in many others.

Gall was distinctly aware that in judging of this propensity, the character of the generative powers is an essen-

tial element; and he was careful to separate what might be due to them from what belonged to the cerebral seat of the feeling. But this allowance is difficult to make in every instance, from the habitual concealment prevailing in all that relates to this subject. Great force of constitution generally will impart vigour to the region in question, in common with other animal functions; but there may also be a large special development of the generative function. This should be seen to in the first instance; and we should be careful that the appearances should be such as we ought to refer to the brain and not to the other organs concerned. As in a man of powerful muscles there may be a tendency to athletic exercises, sports, and pursuits, without any cerebral peculiarity determining a mental taste, so it may be in the case before us, while there is not the same facility in determining the fact. A good observer would not be at a loss to discriminate between what is cerebral and what is not; the tendency to *ideal* indulgence, at times and under circumstances when the actual power is at a low ebb, is a decisive criterion; but we do not know that the discrimination is actually made in all the cases cited as in favour of the phrenological hypothesis.

Even previous to the inquiry just hinted at, there is with reference to the present, and to any propensity, or faculty, two other preliminaries to settle. In the first place, the *education* of the individual, or the degree of stimulation habitually applied to the feeling in question, must be considered. All phrenologists admit, as everybody else does, that a propensity weak by nature may be made considerable by exercise; and it is to be seen by a reference to the history and circumstances of the individual whether an unusual cultivation has been bestowed in the particular case. There is no insuperable difficulty in estimating this element; for if a faculty be weak from the commencement, the education employed to give it an average vigour

must be so sustained as to be unmistakeable. To convert a bad arithmetician by nature into a dexterous and ready calculator, we must apply an amount of training that cannot be hidden, or drop out of sight. In the second place, the *temperament* has to be noted: that is, the quality of the brain, as shown by the tests formerly described—namely, the vivaciousness and energy of the movements and expression. To these two circumstances there is to be added in the instance before us, and in one or two other instances, the character of the parts specially involved in the operation of the feeling. We then come to the quantity of the cerebellum, as the supposed cerebral seat of the propensity. Now, although it is quite possible to make due allowance for all those other conditions that precede the consideration of the quantity of the cerebral organ, considerable pains must be taken in order to do so, and we are not unreasonable in requiring evidence that such amount of pains has been bestowed on a pretty extensive range of examples. Granting that several hundreds of cases have been observed, with all these precautions, which may be fairly doubted, we still desiderate the continuation of the observations till they have embraced thousands of instances. Considering that the inference from them extends to the millions of the human family, we should like the actual verification to extend to a larger proportion than at present of the actual individuals.

Gall's observations relating to the effects of disease, or lesion, of the cerebellum, are met, as he was aware, by the allegation of physiologists that the very same consequences result in certain diseases of the spinal cord. He endeavoured to dispose of this objection, but not so as to get rid of the fact, or of its interfering occasionally with his inferences.

When, therefore, Spurzheim says that it is impossible to unite a greater number of proofs in demonstration of any

natural truth than what is presented in favour of the function of the cerebellum, I must take leave to express my opinion that his standard of what constitutes proof is pitched somewhat low. The doctrine, that the brain as a whole is the organ of the mind, is, I conceive, demonstrated, but not *over* demonstrated. Very much less evidence than we have in its favour would not put it on a satisfactory footing. Yet how very inferior the proofs of any one of the phrenological subdivisions of the brain being connected with a special faculty ! In the case of the whole brain, there is an amount of concurrence, with absence of complicating considerations, that satisfies the entire scientific world, with very few exceptions ; in the case of the partition, ambiguities and difficulties creep in on all sides, not beyond the possibility of grappling with, but involving a degree of labour that cannot be said to have been as yet brought to bear on the problem. Let phrenologists examine the habits of scientific inquirers at the present day in the experimental sciences—in physics, chemistry, and physiology—and see what these men consider requisite in order to establish a general proposition of coincidence of properties in a wide class of substances. The researches of Faraday and Graham, in physics and chemistry, are full of instruction in the mere point of scientific evidence. The physiological experiments and discussions of Müller or John Reid will afford similar lessons. There has been a visible improvement within the last half century in regard to the strictness of scientific proof. What would have been held good evidence at the time when Gall commenced his inquiries, would not be counted so now, even in matters of natural history and natural philosophy. The inductive logic of John Stuart Mill has made the principles of experimental proof accessible to every student ; and if we will but look at his chapter on ‘Co-existences independent of causation’ (*Logic*, Book iii. chap. 22), we shall find a clear account of

the exact logical position of the phrenological affirmations. He points out that such propositions demand uniformity without a break, in order to establish them in their generality. There must not be one single real exception, otherwise the rule is as completely void as if there were not one instance in its favour. Consequently, every instance that seems to contradict the general affirmation must be met and shown to be only an apparent exception.

But has this been done with any one of the phrenological organs?

Still, the question arises, how are we to deal with the number of striking concurrences between mental qualities and cerebral conformations that the phrenologists have pointed out? I can only reply, let them stand as so many individual facts, carrying a certain presumption or probability with them, until such time as extended observation has confirmed them into laws, or shown them to be mere accidental coincidences. At present each person notices how far his own experience goes along with these empiricisms, and is disposed to admit or reject them accordingly. But if a succession of scientific inquirers were to overtake the subject in its full magnitude, the public would be as little at a loss about it, as about the atomic theory or the composition of the atmosphere. There is much that is notable in the coincidences between shape of head and mental peculiarity; and of the entire number of such included in the phrenological system, it is possible that some may stand and others turn out mistaken. As yet, there is no certainty either way.

With regard to the functions of the cerebellum, there is still room for discovery. Gall and Spurzheim, in maintaining its alliance with the amative propensity, examined at length the experiments of Flourens, which went to show the connexion between it and the rhythmical or combined

movements of the limbs. They repeated those experiments, and decisively pronounced them fallacious. Their followers, however, have since been disposed to compromise the matter, and admit both functions, a proceeding not very philosophical, for they still continue to form an unfavourable estimate of the experiments on which Flourens has based his theory.

In thus examining organ No. I. of Phrenology, I have brought forward so many considerations applicable to other organs, that the length to which the critique has been carried will be the cause of shortness in the discussions that are to follow. The peculiarity of this organ, however, that of being connected with an unmistakeably distinct and primitive susceptibility, is not repeated in the two or three next in order.

2. *Philoprogenitiveness*: The faculty which produces the love of offspring. Gall confined the feeling to parental love strictly. Spurzheim and Combe extended it to the love of the young in general. 'There are many animals that take no care of their progeny, as reptiles, and fish; and among birds, the cuckoo. In many species of animals, the females alone take care of their offspring, as among cats, cattle, sheep, &c.; and, in general, even when both parents protect their young, the attachment of the mother is the stronger. The love of offspring bears no proportion to the other mental faculties, but is shared alike by men and brutes, and among the former is often felt as intensely by the most degraded as by the most exalted of the species.'

When we restrict the feeling to the love of one's own offspring, it has a distinct meaning, whether an ultimate fact of our constitution or otherwise. The purpose served by it is specific, and not to be confounded with anything else. There being in the animal constitution certain parts exclusively adapted for reproduction, we are not to wonder

if portions of the brain coincide with the same function, producing the amative propensity above described, as well as the sentiment now under discussion.

It may be true that the fact of *giving birth* to a living being acts specifically upon a separate chord of the mental constitution, but it is still more certain that parental love, as commonly exhibited, contains in it a large admixture of feelings not peculiar to this one case. These require to be fully allowed for in the first instance; the residuum, if any be traceable, will then go towards the establishment of a distinct organ of Philoprogenitiveness.

It has always been an obvious fact that the helplessness of infancy commends itself strongly to the Tender and Compassionate impulses of our nature. Any weak and helpless object will arrest the attention and call forth the aid of the passing spectator. A human being or an animal in distress rouses our pity, and we feel for the time a burst of affectionate interest, with a strong desire to afford succour. The more compassionate the general disposition, the more powerfully will it be stimulated on such an occasion. Now, the infant in its utter dependence is a constant call upon this part of our nature; and not to respond to the call, would be to show an almost total want of that tender susceptibility, on which hangs benevolent affection in all its forms.

The sentiment of Power is also ministered to in the maternal care of an infant. The entire dominion over one human being is possessed by the mother, and the command of a family is the chief compensation to a woman for her exclusion from affairs generally. To most natures, power is sweet; to some intensely so; and we can often observe a loss of interest in a *protégé* who has come to act an independent part. People that have little disinterested affection for human beings, may still be attached to them as tools or slaves. The sentiment of the protector, thus

fed from two copious fountains of our nature—tender emotion and power—is usually one of considerable force; and the protectorate of the mother surpasses every other case. Under the same general head we may note the parent's Pride in giving birth to a living being.

The writers on the human mind have not failed to notice the effect of habitual and constant Care and Solicitude, in giving an additional interest in the object of it. We sympathise, as it were, with our own labours, and put them into the account in estimating the value of anything belonging to us. On this principle, coupled with the general fact of greater helplessness increasing the flow of the tender sentiment, it is usual to account for the mother's superior affection towards the most sickly of her children.

We must not omit the points of attraction in the Comeliness of infancy; in the skin, soft and pure, the eye fresh and clear, the outline rounded, and the vivacity and sparkle of the expression and movements. The æsthetic sensibility of our nature is deeply affected by a beautiful child; and minds that are alive to sensuous beauty in general are naturally attracted by those manifestations. The effusions of a poetic mind on the subject of infancy arise in a great degree from this source. Not that it can ever be looked upon as the main security for the mother's assiduous devotion; but we may fairly include it as one item in the sum of causes that make 'man interesting to man' in this special relationship.

The Hopes and day dreams suggested to the imagination by the unknown future of the infant, are likewise a source of charm in the parental mind. Just as the young man or woman has a contemplative or imaginary pleasure in life that has vanished to the aged, the mother can sustain the dream of hope in the fortunes of the child, when that is no longer possible for herself. This special kind of human interest has been characterized in the phrenological system

under the name of the faculty of 'ideality,' and is doubtless a genuine fact of our constitution.

We have not yet exhausted the case. The child has, in the eye of the father and mother, the interest of being theirs, a part of their Self; and is cherished by them with the whole force of their self-regarding motives. We pain them when we injure their offspring in the same way as if we were to inflict damage on their person, property, good name, or anything else in the aggregate that they treat as their self. The animals that show parental feeling treat their progeny and themselves as one. There is a tendency in the barn-door fowl, as well as in the human being, to form the association which includes offspring in the collective self-regards. An adopted child is found to be no exception to the rule. The mere circumstance of close and constant intimacy, incorporates an object in the bundle of interests that are cherished and defended with all the egotistic ardour belonging to the nature of the individual.

We have now enumerated six general sources of human interest, in all which the attachment to offspring may find roots, in addition to any distinct foundation that may be pointed out as special to this one case. The tender sentiment, the sentiment of power (conjoined in protectorship), the habit of bestowing care, the æsthetic charms of infancy, the scope for ideality, the self-regarding sentiment generally—all concur in producing the parental emotion; and strong as this emotion may be, such an aggregate of elements, every one of considerable importance, is not unequal to the work of accounting for it. We require, therefore, to exercise some caution in assuming a separate organ devoted exclusively to the philoprogenitive manifestation, even granting the probability of such an organ. We should have to find cases where all those six elements were but feebly developed or together came to a small sum, while the regard to progeny was yet marked and powerful; and

other cases where these were present in good measure without yielding the sentiment in a fair proportion. No observer has signalized cases of either sort. Gall mentions a lady who was attached to her husband and indifferent to her children, which, however, goes but a very little way to establish the point. Still, we may admit it as not unlikely that the acts of gestation and suckling may cause special sensations calculated to develop a tender interest in the mother towards her child, and that some constitutions may be specially adapted to feel those sensations, thereby implying a distinctive source of philoprogenitiveness. But to convert the probability into certainty is no easy matter, and least of all, by the phrenological method of observing the organs. An interrogation of the experience or consciousness of mothers,—the old method of the metaphysicians set aside by phrenology,—would be much less encumbered with difficulties than the plan of selecting cases where the total of parental feeling appeared strong, and others where the same total was small, and attributing the difference solely to a specific organ.

When we find Combe attributing to the faculty 'a softness of manner in treating the feeble and delicate even in advanced life,' we are at a loss to recognise in it anything else than a branch of the great trunk of tender emotion. So when it is said that the lower animals may take the place of children in giving it scope, we are confirmed in the same inference. Even to treat it as imparting an interest in the young generally, is to depart from the condition that alone lends force to the assumption of a peculiar organ—namely, the supposed propriety of a natural impulse in the mother to care for her own progeny.

It is needless to advert to the observations of Gall as to the development of this organ in the females of the lower animals, in the monkey tribe especially, in the Hindoos, Singalese, Caribs, and Esquimaux, and in women coming

under his own observation, seeing that the previous question as to the existence of a separate feeling of philoprogenitiveness is undecided. The case is very different from the amative propensity, than which no feeling of our nature is more distinct or more incapable of being resolved, a fact that renders that propensity peculiarly adapted for the purpose of a phrenologist. It is indispensable at the outset, that each one of the faculties proposed to be located in a separate part of the head should be to all appearance a primitive faculty, but the one under discussion contains so much that is included in other heads, that we are not in a position to consider the instances adduced by Gall to prove that its cerebral seat is in the hind part of the head.

3. *Concentrativeness*.—The organ lying above the preceding in the hinder part of the head was left undetermined by Gall. Spurzheim considered it as connected with local attachments, and termed it Inhabitiveness. Combe gives it as the result of his observations that a fulness in this part of the head is associated with the power of concentrating the attention and fixing the thoughts steadily on one object, as contrasted with volatility and desultory tendencies. 'Some persons can detain their feelings and ideas in their minds, giving them the quality of continuity, while others cannot do this. The minds of the latter may be compared to the surface of a mirror, on which each feeling and thought appears like the shadow of a moving object, making a momentary impression and passing away. They experience great difficulty in detaining their emotions and ideas so as to examine and compare them, and in consequence are little capable of taking systematic views of any subject, and of concentrating their powers to bear on one point. I have observed this organ to be large in the former and small in the latter.' (*System*, i. p. 214.) It may be fully admitted that a difference such as here stated does exist among individuals; but were it not that Combe him-

self considers that his assignment of the quality to the portion of the head above specified is still open to new observations, I should have to indicate various preliminary difficulties that embarrass his conclusion. If the power of concentration can be viewed as a separate power of the mind, we must regard it as an aspect of the will, or volition. When it does not proceed from a strong will, it can only arise from a predominating emotion, in which case it is partial or confined to the subject of that emotion. An avaricious man can concentrate his attention with ease upon his money-getting operations, but would not on that account be able to fix his mind upon a demonstration in *Euclid*, or a chain of metaphysical reasoning. A powerful will generally would include the fixing of the intellectual attention as one of the ways of its showing itself; but to consider the faculty as an outgoing of the will would be to locate one of the departments of our voluntary activity in the midst of a region of pure emotions—a piece of patch-work such as phrenologists would themselves repudiate, if we may judge by their disposition to draw arguments from the proximity of kindred faculties in their scheme. Concentrativeness is placed over Philoprogenitiveness and under Self-esteem; right and left of it is the double organ of Adhesiveness. I may have to recur to the consideration of this faculty in connexion with the organs of the will; for the present these few remarks will suffice.

4. *Adhesiveness*.—‘This faculty gives the instinctive tendency to attachment, and causes us to experience delight in a return of affection. Those in whom it is strong feel an involuntary impulse to embrace, and to cling to any object which is capable of experiencing fondness. It gives ardour and a firm grasp to a shake of the hand. In boys it frequently displays itself in an attachment to dogs, rabbits, birds, horses, or other animals. In girls it adds fondness to the embraces bestowed upon the doll.’ It was connected

with a particular organ by Dr. Gall on the occasion of moulding the head of a lady distinguished for inviolable attachment to her friends, throughout great vicissitudes of fortune on her part. Now granting to the full the existence of the characteristics here indicated, we may still be permitted to doubt whether phrenologists have presented to us a distinct and ultimate fact of our mental constitution. The tendency to attachment and the desire for a return of affection express nothing more than what is commonly called an affectionate, loving disposition. We include it under that very general feeling of our nature named the Tender Emotion, with which also we connect compassion, and benevolent impulses generally. It spreads itself over inanimate objects as well, as in the case of local attachments and the affection for the things that we have long possessed or inherited from friends departed. This comprehensive portion of our emotional nature can be shown to have a unity of character through all its phases. (See *The Emotions and the Will*, p. 94.) Phrenology has broken it up into departments and made it crop out in regions of the cerebrum quite removed from one another. It is most decidedly recognised under 'Benevolence,' which is located on the foremost part of the crown of the head, while it enters very manifestly into philoprogenitiveness, and the propensity now under discussion, both situated behind.

A variety of motives may enter into the great general fact of Sociability as a disposition of the human mind. The fondness for associating with others as contrasted with the solitary, self-contented, recluse tendency is not to be always accounted for in the same way. A superabundance of warm affection, as indicated above, may be a cause and a very frequent cause. Although the outgoings of tender sentiment may find scope in things inanimate, in one's own self, in general charity rather than specific attachments, we

find it occurring more usually under the forms of sociability and friendship,—one or both,—in the family ties and in the cultivation of the society around us. The relationships of human beings to one another are the most direct and copious sources of tender feeling.

But, as in dealing with the philoprogenitive propensity, we are compelled to admit other considerations in order to explain the whole of the appearances.

In the first place, we are constantly in want of the aid and services of other human beings. Some people are more dependent in this way than others, and according as they are so dependent will they cling to those who are useful to them. A child must have its mother or nurse, an invalid must have constant attendance; those reared in luxury demand continued pampering. An adhesive bond grows up between the rich man and the train of his menials, and according as he is little able or disposed to help himself he is drawn towards them. His dislike to being left solitary is not a proof of strong affectionateness, but of the inability to supply his own wants from hour to hour. The child cries for its nurse not always out of love, but because it wants to be attended to. We must discriminate between sympathy and exaction: the one is shown by self-sacrifice, the opposite of the other.

It is merely an extension of the same idea to quote the cases where human machinery is necessary to a man's undertakings—as an army, a ship's crew, a body of operatives. The general is very much attached indeed to the men that are to win his battles. He needs no deep fountain of sociability to give him 'adhesiveness' in such a case. To the farmer in harvest-time his reapers are very precious. A king loves his subjects in the same way.

There is a kindred but somewhat different motive for assembling human beings around us—namely, the love of producing an impression upon them by a display of our own

powers. It is a great and characteristic pleasure of our nature to exert influence and produce telling effects upon our fellows, by ordering them about, pleasing them, paining them, terrifying them, or drawing out their admiration and esteem. The strong delight in the company of the weaker, on whom they can exercise their might. A talker wants to have listeners, a jester must have his butt. We contract a sort of attachment to those that serve our purposes in these ways. There may be no great tenderness of nature, and yet a great deal of sociability thus manifested.

We must farther take into the account the craving for an assemblage of fellow-beings as appendages to one's dignity. To be attended by a train of followers is a mode of vanity and importance, one of the most powerful passions of the human mind. To go abroad single is to be undistinguished before the vulgar eye. So to obtain admiration for our good or striking qualities, we must be in society. A beauty is nothing if not seen; an artist must have a sphere—in other words, a public before whom to display his productions.

As already remarked in speaking of the delight in children, human beings are among the sources of our æsthetic pleasures, and their presence is courted to gratify this susceptibility. The love of beauty leads us to human society, as well as to pictures and statues, gardens and landscapes. The adhesive tendency may be strongly alimented from this source, as we see in such remarkable instances as the attachment of Sokratês to Alkibiades. It would of course be easy to ascertain in each individual case of marked sociability whether this were the chief cause.

The foregoing enumeration, including as it does some of our strongest emotions, does not exhaust the tributaries of that stream of interest flowing in the direction of our fellow beings. When the opposite sexes are in the case, the

amative propensity is to be allowed for. The whole of the uses of human beings to one another can hardly be summed up, and yet every one is an ingredient in the propensity we are now considering. The phrenologists have been therefore especially unfortunate in laying this down as an ultimate and irresolvable fact of our nature, for at least half a dozen of their other organs contribute to it. Amativeness includes it in the relation of the sexes; philoprogenitiveness takes in the department of the love of children (and also, according to Combe, the attention to the old); self-esteem, love of approbation, benevolence, the beautiful in art (Ideality), severally add their quota to the sources of attachment and human interest; not even the votary of acquisitiveness is able to dispense with human instruments.

The instance that arrested Gall's attention and led him to set apart the organ, was one that proved too much for his purpose. It was requisite that a proper subject of the feeling should show great fondness and delight in society, and a disposition to contract warm friendships; but the farther quality of constancy and fidelity through vicissitudes of fortune is not a part of the same fact. A mother may be very fond of her children without realizing all the responsibilities of bringing human beings into the world; and the amative propensity may be intense, with great faithlessness to the objects of it; so it is notorious that one may have the keenest relish for the society of others, without fulfilling to the letter all the professions of friendship made in the moments of social delight. The organ of conscientiousness, to say the least of it, should have been referred to in the instance supposed, as associated with the adhesive disposition, and as being in fact the more essential of the two, when severely tried fidelity was so strong a feature in the case. Being an example, so to speak, of moral concen-

trativeness, that organ might have been invoked as immediately adjoining, and probably also of good size in the subject of Gall's observation.

5. *Combativeness*.—This was one of Gall's original allocations. Observing the heads of persons who provoked quarrels and disputes, and contrasting them with others pacifically disposed, he found 'that those who delighted in quarrels had that part of the head immediately behind and above the ear much larger than the others.' Not merely the love of fighting but the more general quality of courage and intrepidity is indicated by the same fulness. 'It confers,' says Combe, 'the instinctive tendency to oppose. In its lowest degree of activity it leads to simple resistance; in a higher degree to active aggression, either physical or moral, for the purpose of removing obstacles. Courage is the feeling which accompanies the active state of the propensity.' Mr. Robert Cox has published a minute analysis of the faculty (*Phrenological Journal*, vol. ix. p. 147), and arrives at the conclusion that when stripped of all accidental modifications, it is neither more nor less than the instinct or tendency to oppose—or, as it may be shortly expressed, 'opposiveness.'

That a real characteristic of our nature, varying greatly in individuals, is brought to view by these descriptions, cannot be denied. It is moreover likely enough, under any view of the brain, that a difference so marked should have a distinct cerebral embodiment. In the case of well-developed combativeness there is manifestly implied a great overflow of active power, in the opposite a deficiency; and we cannot avoid referring the distinction to a difference in the nervous centres, it may be of quality, or of size, or of both.

It is, however, a very nice problem of analysis to arrive at the ultimate constituents of the combative propensity, as a preliminary to fixing on its local habitation in the brain. Even Mr. Cox's resolution of it into the love of opposing,

may not lead us to an absolutely primitive or undecomposable attribute of the mind. For after all, the most contentious person does not oppose at every conceivable point: there are certain moments and circumstances which he prefers for the gratification of his propensity. He will neither push against invincible barriers nor attack insignificant objects. 'Wouldst thou demolish a driven leaf, or hunt the parched stubble?' It becomes a question to consider whether the *selection of occasions* for letting loose the combative disposition, does not indicate a motive of a still deeper, more fundamental, and more general character than the mere fact of opposing, which is certainly not universal or unqualified in any man or animal whatsoever.

It is requisite in the first place to obtain a good type of the quality, or a clear definition of what it implies and what it does not imply. There are people whose conduct towards others is of that irritating nature which provokes quarrels, without their either desiring it, or being able to maintain their part when challenged. Such a case cannot be taken into account. We must likewise separate the combative disposition from mere irascibility, since it is one thing to fight when the 'blood's up,' and another to court opposition in perfect *sang froid*. The phrenologists include the *irascible* more specifically in the succeeding organ, 'destructiveness.' Moreover, there are three alternative situations, under each of which the motive to fight must be differently viewed. The combative person may be sure of beating his opponent; he may be sure of being himself beaten; or lastly, he enters on an issue that is entirely uncertain. On the first supposition his conduct might be explained either on the principle of 'destructiveness,'—in other words, pure malevolence—or on the desire of displaying superiority or extorting concessions to his own advantage. An aggressive army entering a rich but

ill-defended country, can be looked upon merely as employing its strength to obtain plunder. On the other hand, if a combatant has either the certainty or the probability of being beaten, and yet enters the lists, we must give him credit for a very pure fighting disposition.

Combe remarks that combativeness is necessary to all great and magnanimous characters. 'Even in schemes of charity and philanthropy opposition will arise, and give employment for the combative disposition.' This is true enough; but if there be a decided motive for maintaining a combat, we have no proof that a man's combativeness is a part of his nature. The mildest of men will take up arms in support of a cause dear to them. We cannot with certainty attribute combativeness to Cromwell or Washington: we can attribute it to Alexander the Great, because his conquests, taken altogether, were without any assignable motive, except his pugnacious disposition. In the analysis of his character given by Mr. Grote, he is represented to us as a fighting animal, a man hunter, a sportsman on the great scale, the 'champion' of the known world. In him we have perhaps the purest specimen that history contains.

Another preliminary remark is still called for. Every combatant has his own favourite weapons. The commander of twenty legions does not choose to enter on a verbal disputation, unless, as sometimes happens, he is strong in that weapon as well. Cromwell took up the Edinburgh clergy on their own ground of verbal argument, but in that he probably delighted more than in his sword. The natural combativeness of human nature consists in the employment of each man's special weapon for gaining victory over opponents. It is the very same with the lower animals. Each finds itself in possession of an effective machinery—teeth, claws, a sharp beak, poisoned fangs, an electrical battery, a woven mesh, a death hug, a

battering ram—and is constantly giving vent to its activity in putting that in motion; precisely as the boxer, fencer, marksman, declaimer, or any other human being gifted with offensive arms. It is in the possession of those instruments that we must look for the primary germ and foremost element of the combative faculty. But the outward tool has to be propelled by an inward battery. A certain part of the brain and nervous system of every animal evidently serves as the motive power of the active mechanism. In such a case as the torpedo, where the offensive weapon is peculiar, consisting of an electrical pile, there is a large lobe of the brain for supplying nervous power to the instrument, as well as for directing the time and manner of its employment. So as regards the ordinary muscular movements of the animal frame. Hardly anything, for which the evidence is but inferential, can be more certain than that action flows from an internal source of power, discharging itself spontaneously previous to, and independent of, the application of stimulants *ab extra*. (The proofs of this fact have been given at length in the treatise *On the Emotions and the Will*, p. 327.) Different organizations differ in the copiousness of this spontaneous discharge; in fact, the same individual varies in that respect according to circumstances. The young excel the old in the vivacity and vigour of the natural impulses; in the healthy condition of the system they are at their maximum, while in disease and exhaustion they dwindle, and at last entirely fail. The ravenous tiger is contrasted with the browsing sheep in this particular. The one has a highly developed muscular system, prompted by a powerful cerebral battery; in the other both parts are to be conceived of as inferior in energy. With the possession of a tool, therefore, we must couple the cerebral stimulation to wield it in energetic and prolonged exercises. A bird, or insect of flight has both wings and a corresponding nervous centre, charged by

virtue of the animal's nutrition, and discharging itself after every period of repose, without waiting a special object to be served by the movement. The animal once under way, soon finds uses for its power, and learns to control it for gratifying its wants; but the beginning comes of spontaneous central energy. At the outset there is no special drift to which those movements tend. The animal is not more combative or destructive, than it is amicable or constructive. The beast of prey, awakening after slumber full of energy and renewed life, darts out incontinently, for the first few moments intending no harm: it is the dawning sense of his wants for the day, and his experience of the mode of supplying them, that converts spontaneous vigour into combativeness, destructiveness, and thirst for blood. A similar spontaneity in other animals leads to works of pacific construction, as in the beaver, the bee, the ant, and the nest-building birds; while in the herbivora it leads to an onslaught on the surrounding vegetation. Combative-ness is only one direction of the active power of the animal; it presupposes a liberal fund of that natural activity, and further implies some other mental peculiarity, or some external circumstances, that impress upon it this special direction. Men or animals with copious central energy are prepared to do with might whatever they do; the basis of a strong will is laid; the mode or character of it depends on the sensitive and intellectual regions of the mind.

Bearing, then, those considerations in view, the most probable account of the faculty or propensity under discussion is as follows. Being an essentially energetic mode of our activity, it requires a system naturally endowed with copious spontaneous impulses. There are operations that one may perform languidly, making up the deficiency by time; a combat with an adversary in earnest is not one of those. An adequate tool, with a powerful nervous battery at its back, the essential fact in every constitution distinguished

for action, is indispensable in a life of warfare; and none but beings so endowed voluntarily make choice of that vocation. Still, the fund of energy thus supposed need not, as a matter of course, pass into the fighting trade. If the likings of the animal are philanthropic and pacific, the activity will be controlled into corresponding channels. The physician or the nurse may have as much natural energy as the soldier that supplies the subjects of their labours. The characteristic of intense, incontinent, and continuous activity, applied to any branch of trade, money-getting, science, or philanthropy, is at bottom the endowment requisite in successful contention and strife; but the individual in the one case is attracted by the ends of production and usefulness, and in the other by a different sort of end. We must therefore try to define exactly what is the peculiar end, pleasure, or susceptibility that fighting gratifies, and on account of which the instrumentality that serves other purposes equally well is turned into this channel by preference.

Setting aside the cases of warfare carried on for definite objects—as wealth, office, territory, &c.—and looking exclusively at the instances where no ulterior end is in view, we must pronounce the love of combat to be nothing else than a mode of the Sentiment of Power, whose wide ramifications no psychologist has ever adequately tracked out. The satisfaction of prostrating a rival is a glut of the sense of superior might, brought out in a way to strike home to the mind. The feeling of power essentially implies comparison, and no comparison is so effective or startling as that between victor and vanquished. The chuckle and glee of satisfaction at discomfiting an opponent, no matter by what weapons, are understood wherever the human race has spread, and are not wanting to the superior animals. From the savage exultation over the lifeless corpse, to the half-concealed grimace of the polished wit whose sarcasm has told against

a rival, there are many varieties of manner, but the emotion is the same. The occasion is one that human nature cannot resist, until the benevolent sympathies and a high cultivation have firmly occupied the ground. Not that the delights of power ever die out, but the mode may change, and the gratification be found apart from the perils of warfare and the sufferings of fellow-beings.

There are thus two distinct ingredients in the combative propensity; the superabundance of central energy, which may take this direction or other directions; and the love of power in its most wide-spread guise—successful rivalry. This last feeling may exist in the bosom of the weak as well as in the strong; and as no one is so feeble as not to meet occasionally a more feeble opponent, the gratification is never entirely debarred. The same generic sentiment shows itself in inflicting pain on those that are not rivals, nor able to defend themselves—a satisfaction still less tinged with humane sympathy. In public combats, we should not leave out the popular applause that greets a victor; but that applause itself springs from the same source in the human mind, modified only by the change of position from actor to spectator.

A person distinguished for combativeness must have both the ingredients now specified: the energetic temperament and the keen sense of manifested power, with little or nothing to mar the enjoyment of another person's discomfiture. Supposing, therefore, that Gall's allocation of the propensity was tolerably well founded, which of the ingredients are we to consider the principal in the case, so as to localize that in the organ assigned? Undoubtedly the most essential element is the feeling; for if that were absent, the spontaneous energy would flow in other channels; but as the feeling is universal, although not equal, the possession of the active element is likely to be followed out into this special gratification, perhaps as one of many

applications. On this supposition, the protuberance behind and above the ear might be taken as an indication of an actively disposed mental system; the more so that courage and persistent energy in general are ascribed to it, qualities that have no necessary connexion with the grosser delights of power. When Combe says that the propensity is necessary even for philanthropic schemes, he cannot mean the pure pleasure of fighting; for the predominance of that peculiar temperament would lead one to enter on a benevolent enterprise merely because there was scope for pugnacity, and to abandon it when there was no longer any one to contend with.

6. *Destructiveness*.—This propensity is very much of a kindred with the foregoing, and presents an opportunity for pursuing the observations just made. It was designated by Gall the disposition to kill, and the locality of it was suggested by comparing the skulls of carnivorous animals with herbivorous, and those of murderers with average human beings. In the former classes there was a fulness over the external opening of the ear.

Mr. Robert Cox, in an elaborate examination of Destructiveness (*Phren. Journal*, vol. ix. p. 402), regards the primitive feeling as the 'propensity to injure,' sometimes with malice, at other times not. He remarks that it is 'a law of the human constitution that, when any of our faculties is pained, or disagreeably active, this propensity comes into play; that is to say, there is immediately excited in the mind of the sufferer *an inclination to injure*,—having for its object the inflicter of the pain, if one exist, but not unfrequently vented, when the feeling is uncontrolled by the moral sentiments and intellectual powers, upon neutral individuals, or even inanimate objects.' We have here, in fact, merely another name for the *irascible* emotion, although Combe asserts that metaphysical authors do not treat of any power resembling the destructive propensity.

Proceeding as in the case of combativeness, we must here also recognise the element of spontaneous activity directed by a feeling which, in the present instance, is a pleasure or gratification resulting in great part from the infliction of pain or injury upon sentient beings, but also prompting to destroy things inanimate. It is true, as Mr. Cox observes, that we are more especially prone to invoke the gratification when under pain ourselves; but it must be grateful to us at other times, if it is to serve us on those occasions. The operation of pain in a fit of irascibility is in all probability twofold: in the first place, we crave for a soothing application of some sort to neutralize the sting; and in the second place, under pain, the benevolent impulses are for the moment quashed, and do not, as in other moments, offer any check to the infliction of injury. There must be in our minds a positive delight in causing suffering, provided none of our tender or benevolent sympathies come into play; and this delight must be in a great measure resolved into that comprehensive sentiment of power already alluded to. Any striking effect caused by our agency gratifies us intensely; and few effects are more striking than the putting sentient beings to pain or destroying their life. Our benevolent sentiments, when well developed and actively excited, may mar the delight or convert it into loathing; but let these be wanting or submerged for the time, and the reality of the pleasure of malevolence is made unmistakeable. The destruction of inanimate things reflects upon the agent's sense of power in the same way, especially when attended with *éclat*: a conflagration, a smash, a noise, a tumble, a grand subversion of the existing order of things, is intensely gratifying from earliest childhood. The cruelties and wantonness of Nero show that both the animate and the inanimate come under the sweep of the one common craving for telling effects in answer to the exercise of power.

Thus both the combative and the destructive propensities are phases of the delight in manifested power; and if we admitted the observations of phrenology as establishing the existence of a protuberance behind and over the ear in connexion with extreme intensity of those feelings, we might suppose that this comprehensive emotion of our nature had a location in that part of the brain, or in some part producing an eminence there. Or we might interpret the case differently. As both feelings imply a considerable abundance of the spontaneous central energy, we might look out in this quarter of the head for an indication of that energy in unusual measure; and there would be no intrinsic improbability in supposing that great natural vigour is apt to be accompanied with the pleasures of exercising it in the *most telling forms*, unless the more humane sentiments so far predominate as to elevate the character of its workings.

6A. *Alimentiveness*.—It may well be conceded that the appetite for food is a distinct and irresolvable propensity of our nature, and therefore on that score a suitable instance for phrenology to lay hold of. The differences between individuals in respect of the enjoyment of eating and drinking must be due in part to the digestive organ, as we know that the relish for food varies with the condition of the stomach in the same person. But mere inequality of digestive power will not explain the whole difference. Indifference to the pleasures of the table often co-exists with a good digestion, and a high epicurean relish will be found along with a feeble stomach. That intense love of good eating, rising to a passion and serious pursuit, and giving birth to fond anticipations of each coming feast, may most reasonably be ascribed to a cerebral peculiarity, not less so than the amative propensity. The phrenologists profess to have established the locality of it on the basis of a very wide induction. They

place it in front of the top of the ear, adjoining destructiveness. As there does not attach to this feeling the ambiguity that we have occasion to complain of in other members of the phrenological classification, the case is simply one for prolonged observation, which will at last settle the question as to locality one way or other.

The organ of the LOVE OF LIFE in the abstract, is put forward by Combe, but not with much confidence, and need not detain us. It would be no light undertaking to prove the existence of such a feeling as a primitive element of our nature, independent of all the other feelings, pleasurable and painful, that go to form our estimate of the value of life.

7. *Secretiveness*.—The first instance that suggested to Gall the locality of this organ, was a friend of his own, who possessed good abilities and amiable qualities, but with an extraordinary disposition for cunning and finesse. Combe defines the propensity as the motive for repressing that free outward expression of our feelings and ideas, which would be the natural tendency of the mind, but for some such motive. It is an instinctive tendency to conceal, and the legitimate object of it is to restrain the outward expression of our thoughts and emotions, till the understanding shall have pronounced judgment on its propriety. ‘A fool,’ says Solomon, ‘uttereth all his mind; but a wise man keepeth it in till afterwards.’

The existence of a greater secretiveness in some persons than in others, is as certain as the explanation of it by a primitive faculty of our nature is doubtful. So many obvious motives can be assigned for concealment and reserve, that it would be in the last degree difficult to assure us of there being a tendency to conceal without any motive. The inconveniences of too great openness soon suggest, to a mind of common prudence, the propriety of

a certain amount of reserve ; and a habit arises of putting a restraint upon the natural outspokenness of the original disposition. Secretiveness is a grand instrument of power to ourselves, and is of peculiar service in enabling us to keep out of other people's power. Demosthenes, in one of his strongest denunciations against Æschines, strikingly remarks that 'a man who gives his opinion before the event, makes himself responsible to fortune, to those that have followed his advice, and to every person that chooses to hold him accountable.' If we are in anywise alive to such responsibility, we are chary in needlessly announcing our purposes to other people beforehand. Secretiveness in the extreme, is in fact the excessive use of an instrument directed against that foreign intervention which so often frustrates our ends. It is an instrument serviceable to the weak as well as to the strong, and helps to make up for the want of other force, offensive or defensive.

Whichever way we view the secretive propensity, we shall find it explicable by a reference to other well-recognised principles of character. When the feelings are naturally strong, they vent themselves strongly, and are difficult to conceal ; and in particular, when the sociable tendencies are highly developed, their natural result is an open and confiding temper. The counter-forces inspiring reserve are chiefly of the prudential kind, and relate to the gaining of our chief objects of pursuit, and avoiding the evils that we most dread. Being determined on some end, and unable to compass it by an open policy, there is a temptation to underhand methods, but the assiduous employment of such methods is no proof of an instinct of concealment. Of course, it is easier for *cold* natures to fall into the close and reserved policy, and we see that it prevails most in this class of minds. On no account, therefore, are we disposed to agree with phreno-

logists in pronouncing secretiveness an ultimate faculty. There is not a single fact adduced by them that does not admit of being otherwise explained.

8. *Acquisitiveness*.—‘The primitive faculty manifested by this organ appears to be the sense of property, of which the desire to acquire is the active form.’ Gall found in the heads of determined pilferers and thieves ‘a long prominence extending from the organ of secretiveness, almost as far as the external angle of the superciliary ridge; and that this region was *flat* in all those who showed a horror of theft.’

Combe quotes the reasonings of Hutcheson, Stewart, and Brown—to the effect that avarice is not a primitive manifestation of the human mind, but an instance of that power of association, by which what was originally of the nature of means, comes to be sought as an end; and declares that they entirely fail to explain the facts. He quotes, as a more just observation of real life, the remark of Dr. King, that an avaricious man ‘is *born* and *framed* to a sordid love of money, which first appears when he is very young, grows up with him, and increases in middle age, and, when he is old, and all the rest of his passions have subsided, wholly engrosses him.’ He mentions Lord Chancellor Hardwicke and the Duke of Marlborough as examples.

It is no proof of an independent faculty that the manifestations relating thereto are sometimes both early and strong. The causes that would dispose the human mind to acquire property are neither few nor slight, and until these are all sought out and fully allowed for, we are not entitled to assume a separate propensity towards money-getting. For it is to be remarked, that the motives to acquisition do not operate equally upon all minds; there may be the greatest possible differences in the desire without inferring a primitive instinct as the basis of it. We are not all alike susceptible to the ends and uses of property. What Combe

affirms—that ‘association of ideas and the love of enjoyment are universal qualities of human nature’—if he means that they are equally manifested in all men, is not true; for both the facility of forming associations, and the active pursuit of gratifications, are as various among individuals, as any mental peculiarities that can be named.

To speak of wealth merely as the source of a certain number of enjoyments is to employ inadequate language. One might be led to suppose that we are all born into the security of a certain moderate subsistence without any toil, and that the pursuit of money had for its object to superadd certain luxuries that a contented mind could dispense with. But when we reflect upon the real state of the facts—that we come naked into this world, and cannot exist a single hour without the fruits of property; that wants and necessities press upon us from every side relievable by means of money; that for a scanty allowance of this grand indispensable we have to devote ourselves to incessant toil; that neither weariness nor bodily ailment can procure a dispensation from this fate; that the millions of our race are little better than slaves in the service of their ill-supplied wants; that the burden of poverty crushes the energies and cuts short the career of nearly all that are born; that affluence absolutely abolishes many pains and alleviates many others; that being an exceptional thing it confers a special distinction on its possessors, enabling them to purchase the services and homage of multitudes in all other respects their equals; that without it the pleasures attainable by human beings are limited; and finally, that in the state of comparative destitution the human mind is disposed to exaggerate even the solid advantages of wealth, and to take no account of the cares that operate as drawbacks;—we shall not be surprised if the love of acquisition becomes a part of our nature, and in some cases rises to a passionate height, without the aid of any primitive instinct of hoarding. It

must be at least as strong as the desire of satisfying hunger, quenching thirst, shielding from cold, obtaining repose from labour and relief from aches, and all the other susceptibilities, pleasurable and painful, where it is believed to apply. Some men feel the pains, the subjection, and the contumely attendant on destitution much less than others ; some feel them in the present but not in the future, and in consequence are not incited to a career of provident accumulation ; while a certain number, sensitive in the extreme to both present and future, and finding themselves able for the exertions that can lead to abundance, give their whole soul to the pursuit, so much so as to postpone indefinitely the period of actual enjoyment, becoming in the end the mere creatures of a habit of acquisitiveness. It is not, however, correct to say that the miser sacrifices every human pleasure in subservience to an instinct of amassing. Supposing he purchases no one's attentions by generosity, the mere fact of his wealth captivates spectators and secures deference ; and even when he carries the grinding habit so far as to alienate every one around him, there remains to him the sweets of an ideal power,—a luxury for which in some shape or other human nature will sustain the greatest labours and submit to the greatest privations. Even the tender emotion that might have united him to a circle of friends, still survives as a warm ray of sunshine upon his heart when he counts his gains. Money is power, love, and beauty to his mind.

We cannot find space for the most cursory survey of the varieties of the avaricious disposition, so as to impart the grounds of our strong conviction that sufficient motives may be assigned for it in every case, without calling to aid a blind propensity to hoard. Gall, Spurzheim, and Combe produce a number of instances of incontinent pilfering on the part of persons whose condition placed them above it—a sort of monomania for thieving. But these rare eccentricities, after all, do not amount to what is contended for ; the same per-

sons show no disposition to amass, invest, labour, and bargain, and follow out the instinct of acquisitiveness in any other respect ; for them the assumption would need to be a faculty not of acquisitiveness but of Furtiveness. At any rate, until some proofs are offered, far more cogent than any as yet presented, I decline to follow the phrenologists in setting apart an organ for this propensity as being a fundamental and distinct element of the mind.

9. *Constructiveness*.—A talent for the mechanical arts is indicated by this designation. The part of the head allotted to it is believed to be large in animals that build, and in human beings that manifest great manual dexterity. Engineers, engravers, painters, operative surgeons, mechanics of great skill in their vocation, are said to agree in having a certain lateral protuberance, whose place is between the ear and the eye, but on a higher level. Such persons are contrasted with another class also to be met with, remarkable for awkwardness in the use of their hands and a want of constructive ingenuity.

In the final analysis of this special aptitude, we seem to arrive at a peculiarity of the *muscular system*, including the nervous centres related to it. The putting forth of muscular force is accompanied with a discriminative sensibility referring to the degree and mode of the exertion, as intense or feeble, quick or slow, and as to the range or compass of the organ moved. We are differently affected by giving a slight blow and by one a little more severe ; and it is to be supposed that some constitutions excel in the niceness of the discrimination. It would be a part of the same superiority to be more retentive of particular degrees of expended power that are found to answer in certain operations—as when a mechanic hits upon the precise blow or pressure or sweep of hand that suits a given effect, and easily retains that exact degree of exertion for future occasions. The fingers of a skilled operative must have both a

nice discrimination and a good memory, so to speak. The centres that direct the muscular movements and take on the acquisitions that constitute mechanical ability must stand high in the scale of development.

A highly-gifted muscular organization is not the only ingredient of manual dexterity, although essential to it. A good sense of the effect produced is a co-operating cause. If it is to construct objects of a given size as judged by the *eye*, delicacy in that organ is of importance, which, however, still resolves itself into muscular sensibility, for the mere optical part of the eye would not enable us to appreciate magnitude. The most decided example of the co-operation of a sense is afforded by musical performance, the ear being the regulator of the movements of the mouth or hand. The painter likewise must have a discriminating eye for colour and shade, to which a good hand effectively ministers.

Phrenologists are amply justified in treating this faculty as fundamental, and in looking out for a coincidence between it and a special conformation ; but in so doing they have made a difficulty to themselves by repeating the same radical peculiarity under another name—that is, the organ of weight, situated over the eyes. The delicate appreciation of Weight can be no other than a species of muscular discrimination, support being but the expenditure of force in a certain way. Any one nicely sensitive to the graduation of a blow or a pressure, cannot fail to be equally aware of differences of the weight suspended in the fingers or arms. Lifting up or forcing down are the same thing to the muscular sensibility ; hence the allocation of two organs for one power is obviously untenable.

CHAPTER IV.

THE SENTIMENTS, ACCORDING TO PHRENOLOGY.

‘THE SENTIMENTS,’ says Combe, ‘embrace certain feelings which correspond to the “emotions” of the metaphysicians. They differ from intellectual perceptions, in being accompanied with a peculiar vividness which every one understands, but which it is impossible to express by any verbal definition. They may be excited by the presentment of the external objects naturally related to them, as danger is to fear, and august appearance to reverence; or by the spontaneous activity of the organs.’ They are enumerated as follows:—Self-esteem, Love of Approbation, Cautiousness, which three are said to be common to man with the lower animals; Benevolence, Veneration, Firmness, Conscientiousness, Hope, Wonder, Ideality, Wit or Mirthfulness, Imitation. These are the superior sentiments that distinguish the human race.

As to this catalogue corresponding with the class of feelings recognised under the title of the ‘emotions,’ it would be remarked by most metaphysicians, that while that is true of most of them, there are one or two exceptions. Thus, Firmness can hardly be accounted an emotion; on the contrary, it is the most decided expression of our Active Power that the whole phrenological system contains. In like manner, Imitation is essentially a mode of our activity; the effects of it may doubtless give rise to emotions, but so might anything else.

The restriction of the superior sentiments to man is probably not meant to be absolute. It would scarce be easy

to exclude the inferior animals from all participation in Benevolence, Firmness, Hope, or Wonder.

10. *Self-esteem*.—‘This faculty inspires with the sentiment of self-esteem, or self-love.’ ‘It imparts satisfaction with self,’ ‘inspires us with that degree of confidence which enables us to apply our powers to the best advantage.’ ‘A great development of the organ, with deficiency of the moral powers, produces arrogance, conceit, pride, egotism, and selfishness.’ ‘It is the source of intolerant zeal.’ ‘The love of power and dominion owes its origin to self-esteem; it is large in the busts of Augustus Cæsar and of Bonaparte.’ ‘Envy is the result of self-esteem, offended by the excellences or superior happiness of others, and calling up destructiveness to hate them. The bitter and envious tone, the sententious reflections, and the ill-concealed self-complacency of backbiters, all indicate an internal adulation of themselves, and a vivid desire of superiority, gratified even by depreciating others. A common form of abuse of the feeling is contempt entertained for other men.’

Here, as in former instances, the existence of the characteristics referred to is not to be disputed; the only question is whether they are all properly referable to one primitive faculty of our constitution.

Now, in the first place, it is not clear that self-complacency, self-esteem, self-confidence, self-love and selfishness, and the love of power, are all either the same, or the offshoots of one common stock. There are apparently several distinct meanings involved in those various designations.

By Self-complacency is understood an especial charm in the contemplation of one’s own excellences or merits; a warm, comfortable feeling diffusing itself through the system when some good quality in self is brought forcibly before the view. Anything that, seen in another person, would call forth pleasure and admiration, is apt to kindle the agreeable state called Self-complacency, when beheld in

ourselves. Bodily strength, manual dexterity, intellectual force, artistic execution, moral ascendancy,—excite the admiration of the beholder and the complacent sentiment of the agent. Confining our attention to those points, it might be said that the feeling after all is but a mode of the pleasure attending the exercise of superior might ; this is evidently Combe's opinion. But we find the same state arising where no power is exerted ; as when a man is surrounded by certain adjuncts that impress a spectator but reflect no merit in him ; such are titles, rank, splendour, family, personal beauty. It can hardly be said to be an exertion of power that makes the charm of a beautiful face ; or, if so, it is generically distinct from the power of a victorious combatant. Still, it inspires admiration as seen, and complacency as consciously possessed. What is requisite to the state in question is the recognition in one's own self of any one of the many personal qualities or accompaniments that it gives us pleasure to see in another person : superior power comprehends only a part of the entire circle.

It is a nice problem of analysis to determine whether this emotion is one of our fundamental sensibilities. An attempt has been made to show that it is a particular form of our tender sentiment, and arises in consequence of our having constituted 'self' an object of special attachment or tender regard. It would then happen that merit seen in self would operate like merit seen in a favourite or beloved person, a child or a friend. (*The Emotions and the Will*, p. 129.) It is a part of our tender feeling towards any object of affection to feel especial delight in all the good or admirable qualities inherent in that object ; the greater the love the greater the pleasure. On this supposition, the thing to be explained in a case of highly developed self-complacency, is the train of circumstances that determine the individual to regard self as an object specially beloved ;

and the explanation would no doubt be that the tender element is originally strong, while there is some want in that part of the constitution that makes other persons seize an almost exclusive hold of the affectionate regards. Most commonly, people are moved to endearment towards themselves and one or more besides ; occasionally there are instances of a copious current of the feeling taking one sole direction.

If the foregoing account of the sentiment is correct, the separate phrenological organ could not be maintained as respects this one member of the egotistic group. But even on the supposition that self-complacency is an ultimate element, the other names given as synonymous with it bring to view a set of facts not necessarily involved in the above definition.

Self-esteem, strictly so called, is bound up in the definition of self-complacency ; and implies only this in addition, that from the repeated contemplation of our own excellences we have contracted a settled estimate of our merits in those points, which we act up to in the same way that we act up to our sentiments of esteem or respect for another person whose virtues have impressed us. 'The preference of self to those less esteemed, the respect for our own good qualities, is shown in various ways, and perhaps most conspicuously in the feature of self-confidence. The trust in our own powers, and the conviction in our own opinions, because they are ours, are criteria of effective self-esteem. A still further test is supplied by the contentment derived from the estimate of self, and the independence of any concurring estimate from other persons.' This self-sufficing affection is the strongest form of the sentiment.

From the one root of self-complacency we may therefore derive all that is included in the other terms, self-esteem, self-confidence, and self-sufficiency. Any emotion that is highly developed in the system, being well-sustained by

cerebral power, has two distinct ways of showing itself. The first of these is the amount and persistence of the pleasure it gives (supposing it pleasurable), as distinguished from those instances where a feeling is merely a slight sparkle and done. One may have a certain pleasure of self-elation, genuine, so far as it goes, but of so little force or durability that one's happiness would be little impaired if it were wanting entirely. The second mode of testing the effective power of an emotion is the influence on Belief. If a strong conviction is generated in the direction that the excitement takes, with or without experience, we may be sure that the feeling is a powerful one. Whatever be the physical support, of the emotional state, whether a large local development of the brain, or an exaltation of the quality of the cerebral substance, or both, we are entitled to presume the existence of that support in the case where a person derives a large and recurring Enjoyment, and is prompted to an intense Belief, through the self-complacent sentiment, or any other. Strong affection and esteem towards another person give both an abundant satisfaction in the friendship, and a confidence in the judgment, of that person; and so with self.

The terms Self-love and Selfishness, introduced by Combe as also expressing the sentiment in question, do not strictly adhere to the meaning now defined. They take a larger sweep, so as to include not simply our estimate of our own powers in the production of admirable and imposing effects, but everything that constitutes our interest in life, to the exclusion of the interests of others. When we eat, drink, and clothe ourselves, having solely in view our own sensations, we may be said to be actuated by self-love. This quality is constituted by the negation of our regards for the feelings or interests of other persons, in every matter that can possibly affect them or us. It is the natural tendency of our various propensities, appetites, or desires to seek their

own gratification to all lengths, or until a special intervention arises on the part of those elements of our being that have respect to the feelings of those about us, and the explanation of predominant self-love or selfishness must be sought in the non-intervention of that class of disinterested sentiments. Being an actually occurring feature of human nature, we do well to include it in a comprehensive scheme like phrenology, but not in conjunction with Self-esteem, which is a more narrow and special manifestation, compatible with much disinterestedness on many points. A person of extravagant self-conceit may be very generous in the disposal of money.

But next as to the love of Power. 'I have never,' says Combe, 'seen a man fired with ambition for situations of command in whom self-esteem was defective, or even moderate in size; so that there appears no adequate ground for assuming pride to be one primitive sentiment, and the love of power another and distinct original desire.' There are, however, modes of self-complacency that do not imply the love of command. A man may have the utmost complacency in his farm or his workshop, in his skill as an artisan or a musician, without aspiring to political power. Women are not generally considered ambitious of command, and yet they are not devoid of self-esteem.

A much larger question is opened up, when we descend to the deepest foundations of the various excellences, or good qualities, that inspire admiration and call out the self-complacent sentiment. It may be said with plausibility, that at bottom every one of those gifts and qualities aims at making an *impression* on some minds or other, and that we are so constituted originally as to feel delight in being the authors of such impressions or effects, which delight is the most generalized aspect of the sentiment of power. The exercise of command and authority is one form, there being many others besides. Persuasion by argument,

although excluding authority, is still a mode of power. Even the communication of knowledge is a way of producing an effect on other minds that places the teacher in a position of superior power. The artist that produces pleasing pictures makes an impression that it is gratifying to himself to witness, no less than the evolutions of an army at the bidding of the commander-in-chief give him a pleasurable elation. So those natural charms that imply no merit in the possession of them, in the effect that they are seen to have on the mind of a beholder, are a source of pleasurable gratification to the possessor. The paraphernalia of station and wealth are in the same position. The constitutional monarch, to whom attaches the pomp of royalty, produces one sort of impression; the minister, who wields the power of the State, realizes to himself a different kind of impressiveness;—all that can be said is, that there is a generic agreement in the fact that both the one and the other are the authors of wide-spread and deeply-felt sensations in the minds of men.

We have seen that combativeness and destructiveness are but varieties of the pleasurable exercise of power. It would appear therefore that this most general susceptibility of our nature—the reflection of our own agency in the impressions that we make on other minds—takes on different shapes, and is manifested by very various preferences among individuals. One man's delight is in pure force, another feels a greater charm in persuading by eloquence a free assembly. Some would choose to be the reigning monarch, and some the governing minister. The power that superior information gives, is felt by one who would care nothing for the influence of a general or of a judge. Some would prefer wealth to personal charms; others not so. Hence, granting an organ of love of power in general, we still desiderate subsidiary organs for determining the character or direction of it.

In fact, the reflections already suggested by the consideration of the combative propensity recur here. An intense feeling of one's own agency or effectiveness shows itself, in the first instance, in the forms that universally strike the untutored mind—that is, in the victory of force and in the absolute command of as many other beings as can be brought into subjection. A special cultivation brought to bear on the mind, or the existence of strong sympathies, may cause a distaste for this gross kind of influence, and substitute a desire for modes that allow more scope to the free impulses of one's fellow beings. It then delights us to rule by moral suasion, and to impose subjection by the charms of artistic display, or the possession of superior wisdom. Moreover, the peculiar effect that we ourselves are more sensitive to is the effect that we are most gratified in causing in others. He that feels the deepest thrill under a touching melody, is the man to be most elated by his own musical compositions or performances. So strong was the charm of military achievements in the mind of the late General Havelock, that the great aspiration of his life was to command in one successful engagement.

The allocation of an organ of self-esteem and love of power, at the back of the crown of the head, may thus be seen to be attended with some difficulties. If the love of command is to be the interpreting feature of the sentiment, this is so much allied to combativeness and destructiveness as to be substantially a repetition. If the self-complacent regards are to be the prominent circumstance, the absence of a tendency to contract strong regards for other persons might be a sufficient explanation in the case of a mind deeply alive to tender feeling. Indeed, both in the aspect of love of influence, and in that of self-sufficiency, human nature is so apt to run to excess, that we are most usually called upon to account for the instances where they appear

in moderation. The absence of certain counterpoising forces is almost enough in the ordinary run of persons to produce them in an extreme degree, subject to the consideration already noticed, that great spontaneous central energy is more apt to be accompanied with the pleasure of power than a feeble endowment in that respect, precisely as a great development in the intellectual faculties naturally leads to intellectual tastes. The sum of the whole matter therefore, in all likelihood, is that the observations of phrenology point out a certain region in the middle, back, and top parts of the head, where an unusual size or fulness is the accompaniment of great natural energy of character—of Will, in short, while the manner of this energy is dictated by susceptibilities scattered over the brain. The close contiguity of firmness and self-esteem would favour this supposition.

II. *Love of Approbation*.—The antithesis of pride and vanity was not left to the phrenologists to set forth. While there is common to both the susceptibility to honour, esteem, and admiration, they differ in the peculiarity of *self-sufficingness* which attaches to the proud man and is absent from the vain. The one is strength of character, and the other weakness. The love of approbation certainly does not exclude self-complacency, but implies merely that the individual's self-complacency is not so powerfully sustained by internal forces as to dispense with support from without. As a general rule, great self-esteem will involve a corresponding love of approbation, in the absence of any special motives to the contrary. Unless a man has some grounds for despising the world at large, or is held in general disfavour, he will naturally court popularity as a mere extension of his already powerful self-complacent tendencies.

We shall not do full justice to the exposition of this sentiment without remarking that much of the force of it

is derived and not original. To be approved is not simply to feel the titillation of a compliment to our self-complacency, but to be marked out for other favours and to be exempted from possible and probable evils. Every man carries about with him more or less a certain depressing dread of his fellow men, which to be even for a short time delivered from gives a pleasurable elation, and expressed approbation is one mode of imparting the relief. Some constitutions are more given to fear what society can inflict in the way of evil than to be intoxicated with popular esteem; for we may entertain dread of those that we do not respect. In this view, the pleasures of being approved resolve themselves into the satisfaction, which is not small, of deliverance from indefinite terrors; the man that craves most for them is he that least feels himself able to cope with the public disfavour. On the other hand, great natural self-confidence and courage, by conferring a superiority to that tremulous dread of our fellow beings, dispenses with the same need of frequently expressed approval. This brings out in a decided manner the antithesis of self-esteem and love of approbation, perhaps the point on which alone they are truly contrasted. Great natural self-sufficiency is the exact negation of an anxious eye towards the opinions and sentiments of others; so that if the organ of self-esteem is small, the opposite quality would start into strong manifestation without a separate organ. The state of the question would thus be, that in one acceptation of the contrasted terms they imply the very same quality, in another acceptation they are so completely the negative of each other, that one organ unequally developed would account for both. In all that regards the pleasures of being admired, applauded, praised, complimented, extolled for good and striking qualities, if we are susceptible to them in the one way, we shall be so in the other. A character delighted with self-praise and unmoved by the praise of

others high in the individual's own esteem, would be an anomaly. But in regard to Self-sufficiency,—and a high estimate of one's power to defy opposition and dispense with help,—the craving for approbation, as a token of assistance to be rendered and hostility quashed, is the exactly counter or minus quality; in the same way that generosity is the negative of stinginess, and stolid indifference towards companions the negative of adhesiveness. The only solution of the difficulty presented by the phrenological scheme, in keeping up two organs under those circumstances, would be to confine self-esteem to the one attribute of confidence in one's own powers, and consequent heedlessness of what others may do or think; while the love of approbation would be interpreted to imply the delight of being admired, without drawing the unteuable distinction between self-praise and praise from without. That great prominence, devoted to localizing self-esteem, would in this supposition enter into the comprehensive region of Will already chalked out.

The obstacles in the way of assigning a separate local habitation to the feelings of complacency and admiration would not be entirely got rid of, as we have seen above that there are other plausible explanations of their existence besides assuming a primitive faculty. We may make them a branch of the tender emotion turned towards self; we may class them as a variety of the pleasures of power, in the large sense of producing an observed impression on other minds; and lastly, we may consider the varieties that they assume as caused not so much by differences in their own proper organ, as by differences in the faculties and sentiments that counteract them. This last hypothesis is poetically expressed in the following lines, quoted by Combe from Young's *Love of Fame* :

The love of praise, howe'er concealed by art,
Reigns more or less and glows in every heart;

The proud to gain it toils on toils endure,
The modest shun it but to make it sure.*

12. *Cautiousness*.—The organ of fear, circumspection, and foresight. Mr. Samuel Bailey has remarked, with great propriety, on the union of these three qualities under one organ:—

‘Suppose (he says) that instead of regarding what is usually termed the organ of cautiousness as simply indicating the passion of fear, any one tried to prove, in accordance with Dr. Gall, that it indicates likewise circum-

* In his exposition of the organ of love of approbation, Combe relates some observations made on a child residing in New York, who, in consequence of an accident, had the part of the skull removed which lies over that organ and self-esteem. ‘I kept my hand for some minutes gently pressing on the external integuments over the site of the injury, and distinctly felt a considerable movement, a swelling up and pulsation in the organs of self-esteem; and the same movements, but in a less degree, in those of love of approbation. When I began to talk to the child she was shy and bashful, and at first would scarcely speak. The vivid movements in self-esteem indicated that, amid her extreme bashfulness, this organ was active. As I continued to converse with her, and succeeded in putting her at her ease, the movements in self-esteem decreased, while those in love of approbation continued. I spoke to her about her lessons and attainments, not in flattering terms, but with the design of exciting self-esteem, and the movements increased. Again I soothed her, and they diminished. This was repeated, and the same results ensued. Her father gave her several questions in mental arithmetic to solve; she was puzzled, and made an intellectual effort, and the peculiar movements in the organs of self-esteem and love of approbation ceased; only a gentle and equal pulsation was felt. She solved the question, and we praised her; the peculiar movements in self-esteem and love of approbation returned and increased. This experiment was repeated at least four times, with the same results. I took out a piece of paper and began to write down notes, in pencil, of what had occurred. She looked at my writing; and as all attention was now withdrawn from herself, and her mind was occupied intellectually in observing what I was doing, I placed my hands on the integuments, and only the gentle and regular pulsations of the arterial system were perceptible.’

It is somewhat singular and much to be regretted that Mr. Combe did not make use of this remarkable opportunity for testing a much wider and more fundamental position than the one that seemed to have engrossed his attention. He ought to have excited other emotions than

spection and foresight, he would have to show, in order to make the indication of any value, that these three different qualities always accompany each other, as well as that they are accompanied, when remarkable, by a large development of the cranial organ.

‘The classification, or rather collocation, in any way of mental phenomena so different under one head, would be bad simply as a psychological arrangement, inasmuch as there is (to express myself in popular language) the foresight of hope, of love, of ambition, as well as that of fear; and there is the circumspection of wisdom contemplating

self-esteem and the love of approbation, and seen whether the parts in question still remained in the equable state. If he had roused the child strongly to wonder, or benevolence, or tune, and had found that no increased action took place in the region exposed, he would have reaped a far more decisive testimony in favour of the phrenological doctrines. At best, all that his observations proved, was that intellectual occupation is not accompanied with the same intense pulsation of the brain as when an emotion is roused; but he did not decide the point that of all others he ought to have brought to the proof—namely, whether an emotional excitement is strictly local, and confined to one limited organ special to the emotion, or whether, as the present writer deems the more probable view, it extends generally over the brain. If, after a sufficient number of experiments, it had turned out that the exposed part of the brain of the child remained unaffected under every kind of emotional excitement that did not involve either self-esteem or the love of approbation, a conclusion would have been arrived at of the very greatest value to physiological and mental science, but which at present is not authenticated by any evidence in possession of the public. Strange to say, Mr. Combe considered that he had proved, so far as one example could go, not merely that ‘by exercising the intellectual faculties, we do not necessarily excite the feelings;’ but also ‘that *each organ must be addressed by objects related to itself before it can be called into action.*’ the very thing that he might have proved, but did not bring to the only effectual test—namely, to excite the feelings of remote organs and observe the result upon those under his hand. The emotion actually excited when he began to talk to the child he considered to have been self-esteem; but his own description would rather point to fear as the actual feeling of the moment. To be shy and bashful is with more propriety reckoned under fear than under self-esteem, whose most essential attribute is self-confidence and courage, the opposite of bashfulness.

all things in the circle of its resources as means to the highest ends, and the circumspection of self-interest quietly looking about for every opportunity of aggrandizement, as well as that of alarm casting around it a hurried glance at the outlets of escape from the dreaded object.

‘But, what is more important, fear is an emotion, while foresight, although it may be attended by an emotion or result from it, is an intellectual act, or combination of intellectual acts. The two are heterogeneous and disparate, and bear no sort of regular proportion to each other; nor can they well be brought under a less general description than that of ‘modes or phenomena of consciousness.’ The same remarks are of course applicable in the case of circumspection.

‘For the reasons here given, it may be pronounced impossible, to all appearance at least, that these several mental phenomena can be proved to be the consequences of movements in the same organ; it would require at all events the evidence of three separate trains of very numerous and well-sifted facts; but supposing the apparent impossibility to be overcome by some inconceivable means, the indication subsequently afforded by the organ would be extremely vague, and therefore comparatively worthless. Should you happen to meet with a person endowed with a large development of the organ in question, you would be altogether perplexed what distinctive conclusion to draw as to the qualities indicated; you would be utterly at a loss to tell whether he was very timid, very circumspect, or possessed of great foresight. Your safest inference would doubtless be that the qualities appertained to him in equal measure, but even this cautious conclusion would not be borne out by uniform experience. It is well known that the Duke of Wellington, whose courage was unquestionable, and who was certainly not subject beyond his fellow-

soldiers to needless or easily excited alarm, was one of the most circumspect generals that ever conducted a campaign or fought a battle; and his foresight reached to the minutest as well as the most comprehensive arrangements needful to carry out his purposes. In respect of these latter qualities, he ought to have had the organ large; in respect of fear, he ought to have had it small. Such indications of dissimilar qualities consequently, could they even be established, which they cannot be, would prove of little or no value in any case, and in most cases would mislead.'—(*Letters*, Second Series, p. 227.)

The emotion of fear is a well-defined characteristic of men and animals. We may describe it as 'a tremulous excitement originating principally in *apprehension*, uncertainty, or strangeness; causing a feeling of intense misery, while wasting the energies and subduing the spirit, and finally impressing the intellect to an undue degree with the things that arouse it.'—(*The Emotions and the Will*, p. 73.) Various views might be taken of its foundations in the mental system; we may either look upon it as allied to a particular organ, and proportioned in its manifestations to the size of that organ, or as a feeling natural to our constitution generally, but counteracted by the workings of an organ of courage, to such an extent as to disguise any differences there may be in its own primitive tendencies. So much has it of the nature of weakness, that we might very plausibly attribute it altogether to cerebral deficiency, and its opposite to cerebral fulness. There are some qualities that are so obviously negative, that mere *defect* is their proper explanation; we could not well say that a man was endowed with muscle in such a way as to cause him to be beaten by another man; neither could we set up an organ of impatience, or of obtuseness of sense, or feebleness of purpose. Phrenology has actu-

ally recognised more than one organ tending to impart courage; combativeness, self-esteem, and firmness all involve this quality.

There is one link of connexion between fear and Circumspection—namely, the circumstance that great sensitiveness of mind to the various causes of good and evil would make us more susceptible to the perturbing passion, as well as more energetic in our precautionary proceedings. He that takes an intense delight in music is more painfully apprehensive at the thought of missing a concert than a person little affected by it. A fond mother is liable to anxiety about the fate of her children; a benevolent person is terrified at the thoughts of impending public calamity, when another person not less courageous would be scarcely moved. And in all such cases the active efforts would correspond to the tremulous sensibility. Thus, without implying a special endowment of fear, we should find a more profuse manifestation of the feeling in natures more intensely and variously sensitive than the common run. Those that feel strongly the ill consequences of a false step are moved to avoid it; they may be afraid, or they may not; fear is not necessary to active precaution; but the state of mind that induces precaution may in certain temperaments induce the miserable condition of intense apprehension and dread.

The first examples that suggested to Gall the allocation of the present organ were two public men in Vienna, in whom circumspection was carried to the length of extreme irresolution and indecision. But when Combe describes the organ as large in Bruce, Burns, and the Scotch generally, and as larger in the English and Germans than in the Celtic French, he indicates a character which is undoubtedly circumspect, but also decided and energetic after mature deliberation. If it were made out by a sufficiency of observations that a great breadth of the head between the

parietal bones corresponded with great prudence and caution; the proper inference would be that there was an enlargement in the whole region of the sensibilities, so that good and evil came to be more forcibly retained in the mind in absence as well as vividly felt in presence; while nothing whatever would be proved as to a special susceptibility to fright. But it is not very probable that a characteristic so complex as prudence should be explained by any single organ, or limited locality of the brain. Even among prudent men, the points of prudence assume an endless variety: circumspection in one refers to money matters, all else being neglected; in another, honour and power are the subject of cautious compassings; a third looks to his health; a fourth to his family. Every sensibility that can give its objects an endurance in the intellect or memory, engages the active efforts to secure its gratification and to avoid the occasions that would cause it pain. If a man is very sensitive, and has abiding impressions of what he likes or dislikes, and is not circumspect or cautious, the active energies must be at fault; there must be a want of firmness, combativeness, or whatever else expresses the force of the Will proper; he may injure himself by inaction, but not by rashness, a quality that springs from a vigorous spontaneity not guided by a strong sense of consequences. Where this sense exists, there will be no rashness: a poet alive to his reputation may rashly incur a money loss, but he will not publish crude verses; a belle may risk her health, but she will not compromise her reputation by a slovenly exterior.

Of the thousand shapes of prudence, I may venture to mention one element that perhaps oftener appears in the character than any single thing that can be named; which is, an acute sensibility to the effects of one's conduct on other minds. As nearly all that we enjoy and suffer in life is due to the dispositions of our fellow-beings towards

us, it is of the first importance that we should be alive in time to the symptoms of their pleasure or displeasure, and steer our course accordingly. The looks, gestures, words, and actions of human beings, and the meanings that they convey, are a distinct department of observation, as much as the weather, or the vegetable and animal life of the globe; with this peculiarity, that every one's interest is involved in their skill in descrying, while the indications are yet faint, the rising storm or the genial sunshine in a human breast. As an artist feels at once the effect of every touch in the total of his picture, so some men discern in a moment whether they have given offence or caused delight, while to others no indication of either is apparent. The art of reading countenances and interpreting the full force of words, tones, and gestures, belongs to the politician, the diplomatist, the man that keeps free of quarrels, and to most of those that attain popularity and rise in the world. Such men may do many foolish things, but by being distinguished in this one branch of circumspection, they procure the reputation of prudence, caution, and foresight, which by sinister applications degenerates into cunning. We cannot doubt that in some corner of the human cerebrum, there is a distinguishing development in the instances where this quality of the observation of men is strongly manifested. It may not be an ultimate fact of our constitution, but it is a genuine feature of character, unequally displayed in individuals. It is a chief mode of being 'wide awake,' and an instrument in the hands of every one engaged in ruling, persuading, guiding, instructing, or moulding human beings. The phrenologist would probably include it among the perceptive faculties when thus described; but so might all prudence be resolved, and an express organ of cautiousness done away with. However this may be, it is impossible for us to

concur in the sentence that winds up Combe's chapter on Cautiousness: 'The organ is regarded as established.'

13. *Benevolence*.—The first of the so-called superior sentiments. 'The faculty producing desire of the happiness of others, and delight in the diffusion of enjoyment. It disposes to active goodness, and, in cases of distress, to compassion.' A profuse, disinterested goodness, a hearty fellow-feeling, a renunciation of self when anything can be done for others, are the recognised marks of the benevolent disposition. Gall's observations led him to locate the organ at the upper part of the frontal bone; when it is large, the frontal bone rises with an arched appearance above the organ of comparison; when small, the forehead is low and retreating.

I cannot but concur with Gall in the opinion 'that what is called *goodness of heart* is not an acquired but an innate quality of the mind.' Like everything else, education, example, and all the other appliances may foster it; but there are natural differences that no force of circumstances can erase. Still, it is a question of psychological analysis, classification, and arrangement, to determine what is the most exact and comprehensive way of dealing with it, so as to bring under one head all the manifestations of a kindred nature occurring in human life.

Combe touches on the salient points of benevolence, but his handling is not uniformly consistent. When he says 'the faculty is a great source of happiness to the possessor,' he states a fact that does not distinguish it from many other faculties. Power, sport, and malevolence, are sources of equally great happiness; and every gratified emotion is more or less pleasurable. The happiness derived from benevolence has this peculiarity to recommend it, that it includes happiness to other beings.

His antithesis of adhesiveness and benevolence is like-

wise open to critical objections. 'Adhesiveness attaches us to friends and countrymen; but benevolence brings the whole human race within the circle of our affections.' The more correct view would be that a certain amount of benevolence is necessary to inspire active goodness towards either friends or countrymen; while the extension to the human race depends not on a more intense development of the sentiment, but on that cultivation of the mind that directs the regards upon mankind at large. The quantity of the emotion has limits in every human mind, and we cannot pour it out at many points with the same profusion as if we confined it to a few objects. Combe goes on to say—'Benevolence cannot be compensated by adhesiveness or conscientiousness, or any other faculties. A daughter, wife, or sister, who possess large benevolence, will, at a sick-bed, show an anxiety to alleviate suffering, a softness and sympathy of manner, and, if intellect is possessed, a fertility of invention in devising means of relief, that will be truly admirable, and to the patient invaluable; but if this organ be deficient, although the attendant may, through intellect and conscientiousness, do everything that is suggested to others, she will neither sympathize with, nor spontaneously labour to assuage, the patient's pain.' But surely adhesiveness should prompt a sympathizing manner and an activity in giving relief to the object of the sentiment. How could the author write the foregoing sentence after having described adhesiveness thus—'The faculty gives the instinctive tendency to attachment, and causes us to experience delight in a return of affection. Those in whom it is strong, feel an involuntary impulse to embrace, and to cling to any object which is capable of experiencing fondness. It gives ardour and a firm grasp to the shake of the hand.'? On the lowest supposition, adhesiveness ought to make one as ardent in favour of

friends, as benevolence makes us towards indifferent persons.

As a substitute for the phrenological distribution of the propensities and sentiments that include our attachments and friendly dispositions towards living beings, we should propose to consider amativeness, philoprogenitiveness, adhesiveness, and benevolence, as having, with certain differences, an element in common, respecting which the description of the last-named sentiment gives the most characteristic account. That element may be called the Tender Emotion, which in its physical and mental aspects is one of the best marked and most fundamental of the human sensibilities.—(*The Emotions and the Will*, p. 94.) The family affections, the warm friendship, the compassionate and benevolent impulses, are species of the generic sentiment of tenderness; while it is ready to overflow even upon inanimate things. This is not the place for the full delineation of the feeling; we need only to make a few observations by way of clearing the lines of demarcation between it and certain other elements of character that may get confused with it. The ordinary marks of the emotion are well known, and are substantially contained in the sentences above quoted from Combe; but there are some causes that produce similar effects in the absence of the genuine sentiment, and other causes that may lead to the suppression of the usual indications, even when it exists in considerable power.

In order to benevolent services, it is requisite that we should appreciate accurately the condition of those that stand in need of them. We must be capable of understanding by transference to ourselves the pains to be relieved. If it is a case of want of common necessaries, we must know what it is to be famished and in fear of starvation; if it is consolation for bereavement, we must be

capable of realizing in some sort the misery of the situation. The benevolent sentiment, if ever so abundant, cannot flow towards distresses incomprehensible to our minds, or when the signs of them are not such as to suggest pain to us. A votary of sport is not moved when a man of science bewails the inconclusiveness of an experiment; nor, on the other hand, does he himself receive at all hands his meed of compassion when the hunting season fails from bad weather. The aptitude for entering into the states of mind of other men, is necessary to give scope to the impulses of the heart; and if this is of a very low order, the kindly dispositions will not bear their natural fruit. If, on the contrary, there is a very great endowment of sympathetic appreciation of the states of mind of those about us we shall be so strongly taken hold of by misery and pain, as to be driven to give our aid, although not gifted with more than average tenderness of heart. Very lively sympathies, which, strictly speaking, belong to the intellectual or perceptive part of our mental system, may make amends for deficiency in the proper emotion whence benevolence flows. A good criterion for determining whether this is the case is to see if one keeps out of the way of misery (as is said of Goethe), instead of courting opportunities of showing kindness.

There are other causes, besides dulness of sympathetic appreciation, that prevent the rise of benevolent impulses in a mind where they are really strong. One has been already hinted at. The capacity of tender regards, however large, is not infinite; there are bounds set to it, as to every faculty of the human mind. A certain number of objects obtain a preference, and on them every assiduity is bestowed; beyond these little is done or attempted. Great wealth, great influence, great intelligence, not otherwise engrossed, may enable one to take up a very wide field of philanthropy; but there may be the same tender-

ness of disposition in a small circle of regards. The parent may expend on the child as much of the material of affection, as Howard upon the misery of thousands. A large endowment of heart will always prove itself, when appealed to if disengaged at the moment when appealed to; but the demands of life are so numerous and pressing that we are never surprised at a refusal from the most benevolent of men.

It is farther to be considered that the heart does not rule alone in the mind. Other passions co-exist with it. Malevolent sentiment, although apt to be neutralized occasionally when there is a great fund of warmheartedness, is not excluded. A person inclined to kindly feeling may also be a good hater; and there will be times when this side will turn up in its full power, and the other be as if it never existed. The benevolent sentiment poured out upon the chosen objects of regard will readily turn to gall upon a third person who is supposed to be their enemy. The tenderness of the mother for her brood can be measured by her wrath against the invader of their peace.

Nor must we omit the fact that there is such a thing as self-tenderness and self-pity, and that the main force of the general sentiment may take this exclusive direction. 'Being sorry for oneself' is a familiar phrase, and designates a real occurrence. All the pathos and unction that tender emotion throws into the vocal utterance and the language, may be stimulated by one's own distresses solely; while the interested turn that the feeling thus takes is no proof against its existence. Egotism may avail itself of the principal fountain of our generosity. The touching expression inspired by great natural tenderness of disposition may be used as an instrument of power over others, in the pursuit of the most selfish ends. Characters of this description are familiar both to history and to fiction.

When the sentiment of benevolence is in this manner

fully generalized, so as to include all the relationship of tender affection, we may then not unfairly consider it as a fundamental and distinct element of our constitution, so far as our present knowledge goes; and therefore phrenology is justified in seeking for it a separate corner of the cerebrum. There being no preliminary objections, we are at liberty to admit the entire force of the observations that connect the feeling with the fore part of the top of the head. If these observations are sufficiently multiplied, they may at last establish, what a certain probability has been obtained for, the coincidence of this mental peculiarity with that part of the head. But unless the present organ is allowed to absorb all that element of tender feeling implied in philo-progenitiveness and adhesiveness, we cannot concede so much as is now expressed.

14. *Veneration*.—‘The emotion of profound and reverential respect, on perceiving an object at once great and good. It is the source of natural religion, and of that tendency to worship a superior power, which manifests itself in almost every tribe of men yet discovered.’ Gall, remarking the concurrence between a strong devotional disposition and a great fulness of the middle portion of the crown of the head immediately behind benevolence, followed out the hint, and ‘examined the heads of persons eminent for devotion. He visited the churches of every sect, and particularly observed the heads of individuals who prayed with the greatest fervour, or who were the most completely absorbed in their religious contemplations. The result was the establishment of the part of the brain in question as the organ of veneration.’

While the existence of a powerful sentiment of reverence is beyond dispute, it is far from evident that we are to rank it among the irresolvable elements of our being. In the language employed to designate devotional regard, Love and Fear are constantly spoken of as leading constituents.

So Wonder is a recognised portion of the feeling drawn out by the contemplation of Deity. But all these elements are already counted under some other organs in the phrenological scheme. What, then, is the characteristic constituent of veneration, if any remain, after those three sentiments are allowed for?

In all probability, the main fact of religious and reverential regard is the feeling aroused by *the aspect of power*. We have already had occasion to advert to the prominence of the sentiment of exerted power in the human breast, and to this we must add the feeling towards power manifested before our eyes. What it gives ourselves pleasure to do, may also give pleasure as witnessed in others; the only obstacle being the existence, in some minds, of an intensely egotistical preference. However we may explain the sentiment—whether, as is likely, it be a derivative of the pleasure of exerted power, or contain some new element besides—it is a fact that the sight and contemplation of the effects, signs, and workings of immense energy, are especially capable of arresting and fascinating the human mind; and self-prostration, worship, and unbounded submission are consequences of the impressions thus produced. The sentiment of the sublime, so copiously made use of in art, is by common consent referred to this source. (See Dugald Stewart's *Essays, On the Sublime*.) The worship of might may be confined to cases where the manner of exerting it is approved of by the mind, or we may go the length of admiring every manifestation of it, whatever direction it may take. The intense estimation of such men as Alexander and Napoleon is a pure adoration of force, coupled with attempts to justify itself by palliating their crimes, and by finding out some incidental good fruits of their selfish policy. When power is lodged in good hands, the natural sentiment flows freely and cordially, inspiring reverence and, if need be, submission. The first effect of the spec-

tacle of sublime energy is no doubt to elevate the mind of the spectator by possessing him with the idea of power on a large scale ; an elation that is pleasurable even to fascination. Great pleasure is one of the sources of love to the object that causes it, and a being that fascinates us inspires our tender regard. Still, it is not necessarily implied in either fact—the elation excited by an idea of power, and the tender feeling towards a fascinating object—that we should be led to self-prostration or absolute submission ; indeed, there is something in the primitive effect that repels this ; for the pleasure of an *idea* of power would be liable to be neutralized by the *actuality* of self-renunciation and total dependence. One may have a great enjoyment of the poetical sublime, or feel a great charm in the contemplation of greatness in the historic past, without being disposed to surrender self to a present Deity. To reach this point, we must suppose either that the charm of the contemplation is so overpowering as to carry all before it, including this self-surrender, or that fear which we know to be the great soul-subduing emotion, enters as an ingredient. When the power is actually recognised as disposing of one's own destiny, the sense of real dependence, and the dread of the consequences of displeasure, convert the feeling of poetical sublimity into religious worship. The greater the natural endowment of self-esteem, the more difficult is it to gain the point of total surrender ; and it is well known that pride and self-sufficiency are the sentiments most antagonistic to genuine devotion.

The various elements now enumerated—namely, sublimity, dependence, love, fear, wonder—may mix in such various proportions, according to the mental constitution of the worshipper and the character of the objects of worship, that we are scarcely entitled to put forward one uniform type of the religious sentiment. The adoration of the Virgin Mother in the Roman Catholic Church would seem to have its

roots almost exclusively in the tender sentiment. In ignorant ages, and among unenlightened people, dependence and fear are the more prominent elements of the religious regards. Wonder is sometimes so largely developed as to impress the mind in an especial manner with supernatural power. Under the very same religious system we are accustomed to distinguish the devoutness of love from the devoutness of fear, and both stages may occur in the history of one mind. Without derogating from either the reality or the strength of the sentiment of religious reverence, these considerations throw great obstacles in the way of our finding a distinct organ of veneration common to all intensely devout natures.

Combe remarks that 'veneration leads to deference for superiors in knowledge, virtue, and rank, as well as in years, and prompts to the reverence of authority. The organ is generally largely developed in the Asiatic head, and the tendency to obedience is strong in the people of that quarter of the globe. Indeed, the hereditary slavery which has descended among them through so many generations may be connected with the prevalence of this disposition.' Again, 'veneration may produce also respect for titles, rank, and power, for a long line of ancestry, or mere wealth; and it frequently manifests itself in one or other of these forms when it does not appear in religious fervour.' 'It is likewise the source of the profound awe which some persons feel in visiting ancient temples, Gothic cathedrals, and places of sepulture for the illustrious dead.' So interpreted, the most general aspect of the sentiment is that fascination for the signs and tokens of manifested power above dwelt upon. In all the explanations of the feeling of the sublime, the Past is shown to be one of the influences that produce it. When a slavish disposition, like that of the Asiatics, accompanies the tendency to reverence, there must be other concurring causes, and especially an absence of

well-developed self-assertion. Combe holds out the organs of veneration and wonder as a 'material guarantee' for the undying persistence of religion in the world. But he has also affirmed the present organ to be large in the Eastern populations, where the most numerous irreligious sect is to be found—that is, the followers of Confucius in China—and likewise that it was large in the head of Voltaire, rendering him a devout deist.

15. *Firmness*.—Immediately behind veneration, at the posterior part of the crown of the head, and in the middle line, lies the organ of firmness. Gall observed that persons of a firm and constant character have this part of the brain much developed; and Lavater had previously remarked the same configuration in individuals of that disposition. Gall remarks that, properly speaking firmness is neither an inclination nor a power. He who is deficient in it is the sport of external circumstances and of communicated impressions. 'Its effects,' says Dr. Spurzheim, 'are mistaken for will, because those in whom it is large are prone to use the phrase "I will" with great emphasis, which is the natural language of determination. But this feeling is different from proper volition. It gives fortitude, constancy, perseverance, determination; and when too energetic, produces obstinacy, stubbornness, and infatuation. Its organ will be found large in stubborn and intractable children.'

Firmness certainly does not express the faculty of will or volition; but it may mean the *degree* of the voluntary energy. The difference between a strong and an average will is often described by such terms as 'firmness,' 'fortitude,' 'constancy,' 'obstinacy,' 'perseverance,' &c. The phrenologists discriminate between the strength of a single propensity, such as acquisitiveness, which keeps the mind and energies very much bent upon the corresponding class of objects, and firmness of purpose in general, whereby

great activity is kept up in times and circumstances where no strong emotion is felt.

We have here to iterate the complaint that phrenology has broken up and dispersed in the most irregular way the great fact of our spontaneous energy, which lies at the basis of will, and determines the strength or weakness of our active impulses generally. The consequence is, that nearly the very same language is used in describing the faculties of organs lying apart from each other. Under Concentrativeness we have a description of a character possessing intellectual continuity, as opposed to one that is the sport of passing and momentary impressions. Combativeness is a source of courage and persistent energy in overcoming obstacles; while Gall gives as the motto of the man of Firmness, '*Tu ne cede malis, sed contra audacior ito.*' Self-esteem supplies the energy for command and a confident, self-reliant, self-asserting disposition. The opposition of this last-named organ to Veneration is likewise extended to Firmness, whose extreme development is said to make the subject of it stubborn and intractable. When we consider that Veneration and Firmness are placed in the map over one contiguous convolution of the brain, it jars against all sense of consistency, that the one should cause deferential obedience and the other a refractory spirit.

Notwithstanding the unmistakeableness of the attribute of firmness, when appearing in the men and women that come under our observation, and the strong contrast exhibited when a vacillating person stands by the side of the '*tenax propositi vir*,' there is scarcely a quality of the human mind more subtle to resolve into its ultimate elements. If there were an exact coincidence between it and mere strong will in the sense of superabundant central energy, the analysis of it would be comparatively easy. But although a high degree of firmness of character is incompatible with weakness in the spontaneous energy of

the temperament, there may be a great deal of the last without amounting to all that we expect in the first. A copious and sustained flow of active impulses may be found operating in a desultory manner, the individual being still 'the sport of external circumstances and of communicated impressions.' Whatever a man does he may do with might, but he may do nothing to any good purpose. He may give way on a point where it would be firmness to make a stand, and be distinguished only in doing the wrong thing with animation and fervour. Two boys may show an equal infirmity of moral purpose in breaking into an orchard : once there, the superior in energy will be shown by the greater amount of his devastation and plunder. Mere active energy is consistent simply in expending itself. A sturdy cobra is a consistent poisoner ; the torpedo is a thorough-going galvanizer. The regulation of all this energy for the furtherance of ends, the determining when to act and when to refrain, is not a part of the active mechanism itself, but is to be sought in some of the other regions of the mind, which other regions can only be the feelings or the intelligence.

The contrary illustration will make the point still clearer. A person may have fortitude, constancy, perseverance, or determination, without that copious flow of spontaneous energy that makes the active temperament. Youth abounds most in force ; but firmness, in the sense of tenacity of purpose, is seen in mature age. The old have less power on the whole, but what they have is concentrated upon their special aims. The fiery ebullience of some men dances from one object to another, begins everything and finishes nothing ; a feebler active endowment, never diverted from a main purpose, accomplishes far more. It is evident that without a certain considerable amount of natural energy no great continuous enterprise can be carried out ; because in every such enterprise there must occur obstacles

and moments of difficulty that a feeble nature cannot grapple with. A traveller in an unknown country may not be under the necessity of daily fatigue marches, but unless he is capable of such on occasion, he cannot go on. On the other hand, there may be the power, with a total absence of the concentration of it upon one object, in which case we cannot dignify the person with the attribute of firmness of character. In short, both the active power and a directing influence must enter into the case.

Now, what is this directing influence? We have just said it must be evolved either from the Feelings or from the Intelligence, or both together; for natural or spontaneous Activity, Feeling, and Intellect exhaust the mind. It is a well-known effect of a strong feeling to give a direction to the active power; the hungry animal, instead of careering over the common, will run in search of a meal. It would, then, seem that a very powerful emotion—the attainment of some strong pleasure or the avoidance of some strong pain—can carve out a definite channel for the energies, which will no longer waste themselves in purposeless or desultory ways. When benevolence is highly developed, the individual will be active in doing good; strong æsthetic sensibility will lead a man to devote himself to procure works of fine art; the lover of knowledge, possessing also great natural activity, will be found an earnest student. So with aversions; great sensibility to physical pain and the miseries of ill health will prompt to energetic precautions against disease. What, then, is meant by the following passage?—‘An individual, in whom acquisitiveness is the strongest propensity, may, although firmness be deficient, exhibit unceasing efforts to become rich, but he will be vacillating and unsteady in the means which he will employ: he will to-day be captivated by one project, to-morrow by another, and the next day by a third; whereas, with firmness large, he would adopt the plan which

appeared to him most promising, and steadily pursue it to the end. We may persevere in a course of action from two motives—either, first, because it is of itself agreeable; or, secondly, because we have *resolved* so to act. It is firmness which gives origin to the latter motive, and enables us to persist with vigour in conduct once decided upon, whether agreeable or the reverse.' Can it be the case, then, that acquisitiveness shall be very large, and not prompt a man to use the proper means of its gratification? Supposing him for a time to give way to frequent change of scheme, would not his experience teach him that no success could come in this manner, and from the very strength of his propensity would he not resist the temptations of new projects, and abide by the one that on the whole promised best? Or if it be the fact that vacillation of conduct may co-exist with the strongest emotions, with intense acquisitiveness, benevolence, curiosity, or love of approbation, in what department of the mind does the weakness lie? If not in the feelings, nor in the flow of active energy, we must place it somehow in the Intellect.

There is truth in this alternative. A feeling may be very acute at the moment, and may for that reason stimulate the will strongly, but be very little *persistent in idea*; in other words, it may be entirely forgotten soon after the reality has passed away. A neuralgic pain may be so sharp that there is nothing we should not do to get rid of it; after it has gone, we may be so little affected by the mere memory of the pain as to neglect the precautions against its return. So we may feel strongly at the moment a particular pleasure, but not retain it in recollection afterwards, so as that it shall operate as an abiding motive to the will, or an inducement to make us labour to realize it again. We may have a good or a bad memory for our pleasures or pains, as well as for language, or locality, or poetry, or anything else. A good memory for feelings enables them to operate per-

sistently on the will, and therefore makes us steady in the pursuit of those objects that engage the mind. A firm recollection of bodily pains operates to maintain a systematic course of protective measures, and gives them at times when they are unfelt nearly the same force as their real presence. A man is then 'firm,' 'resolved,' 'determined,' 'persevering,' &c., in temperance and all other hygienic practices. Acute present feeling, joined with good remembrance, cannot fail to secure the constant determination of the will in one direction, unless either there be some motives still more powerful in those particulars, or the active energy be so deficient that nothing can spur it into great activity. Natural indolence, which expresses a very low degree of the spontaneous and available activity, is incompatible with firmness of purpose, even although the other elements are in sufficient amount. But however great the fund of energy, and however acute the susceptibility to pleasures or pain, if these last are not highly intellectualized, so to speak, there may be great dashes of exertion, but nothing persistent, steady, or continuous. The impressions of the moment must not be allowed to act themselves out there and then; they must be confronted with the aggregate impressions of the whole past, and subordinated thereto. A man may be so much cut with a rebuke from his superior, as to be ready at the moment to sacrifice his whole prospects in life, and yet so little tenacious of the pain that he incurs it on a very small temptation of ease or indulgence. It is by virtue of the intellect that we store up remembrances of pleasure and pain, and chalk out a course of proceeding that secures the most of the one and the least of the other; and if we are firm in our adherence to the plan so formed, this is by the force of our recollection of the experiences that it is based upon. It does not follow that because our intelligence is powerful for the common elements called knowledge—language,

science, history, commerce, &c. &c.—that it is also powerful for the retention of impressions of good and evil; exactly as it may be powerful for language and not for science, or the opposite, so it may be efficient for good and evil, and not for any branch of ordinary learning. If a person carries to an unusual development the accurate retention of all things that pain or delight him, and is moved by the prospect of any one as much as (and no more than) by the reality, so that the will is always stimulated according to what is best for him on the whole, the present never counting for more than it is really worth—such person may be correctly described as having a genius for prudence, as Newton may be styled a mathematical genius, or Person a genius for language. He is firm, in the sense of the phrenological quality so called; but firmness does not express the whole of the case. No amount of addition to the mere active endowment, or to the mere intensity of one or more of the feelings (except in so far as intensity is apt to confer persistence in idea), could constitute such a character, without that virtue of the Intellect that reproduces the past in unabated power, to contend, if need be, against the present. Everything that distinguishes firmness from vacillation, desultoriness, over-susceptibility to passing influences, can be shown to have its root in the intellectual region of our constitution, although not in the same department as reading, writing, or arithmetic. Repetition and cultivation operate here as elsewhere; a pain often experienced will be so retained as to incite the precautionary will; the old are wiser in this, as in other matters, than the young. Still there is sometimes a natural aptitude that imparts a precocious development of the prudential faculty, as Pascal and Newton were mathematicians from their tender years.

It is impossible, in the criticism of a single organ of phrenology, to do full justice to this greatly overlooked department of our intellectual nature. The purpose has

been merely to indicate that there are depths to be probed before the quality of firmness can be fully accounted for, and that it must be in the highest degree premature to locate in one organ a fact of character that includes nothing less than the totality of the virtue of prudence. As remarked of cautiousness, nobody is firm or prudent on every point; and the localizing of the faculty ought to have some reference to the special subject matter, according to the plan of having separate localities for form, colour, number, &c.

16. *Conscientiousness*.—Combe, after alluding to the different theories of morals, says: 'I have introduced this sketch of conflicting theories to convey some idea of the boon which phrenology would confer upon moral science, if it could fix upon a firm basis this single point in the philosophy of mind—that not only are we endowed with sentiments giving rise to disinterested inclination to benefit our fellow-creatures, and to reverence goodness and greatness, but, moreover, with a power or faculty the object of which is to produce the feeling of duty and obligation, independently of selfishness, the hope of reward, fear of punishment, or any extrinsic motive; a faculty, in short, the natural language of which is, *Fiat justitia ruat cælum*. Phrenology does this by a demonstration founded on numerous observations, that those persons who have the organ of benevolence large are disposed to perform acts of kindness; those in whom that of veneration is large are inclined to reverence; and those whose organ of conscientiousness is greatly developed experience powerfully the sentiment of justice.' He expresses himself unable to comprehend the account of conscience given by Sir James Mackintosh in the well-known *Dissertation on Ethical Philosophy*, who speaks of it as formed of 'many elements,' and by 'the combination of elements so unlike as the private desires and the social affections.'

Every theorist admits that duty or obligation is a distinct fact of our nature. Some would make it out one of the primitive elements of our constitution, incapable of being resolved into anything else ; and the phrenologists consider that they have established this view on the evidence of their peculiar class of observations. Now it is evidently incumbent upon the supporters of this theory that they should so state the nature of the faculty as that it shall never imply any of their other faculties, and that their observations should show it working in its purity, that is, presenting a clear and uniform result under all varieties of manifestation of benevolence, firmness, cautiousness, and the reflecting faculties. Combe, in the above passage, certainly makes the problem easier for himself by defining conscience as the sense of justice ; but in so doing he restricts the sphere of moral duty as usually conceived. Nor is he always consistent in his restriction ; for, in illustrating the meaning of right, he says, ‘ we feel that it is a duty to be benevolent, and a duty also to worship God,’ both quite distinct from mere justice. Still, if we follow his illustrations, we find that the idea of conscientiousness present to his mind is the faithful discharge of the obligations that we have come under to our fellow-men in actual society. The payment of debts, the rendering of service according to agreement, the fulfilment of promises ; in short, the satisfying of those rights and expectations on the part of others that have the same foundations as all our own rights—these are attributes of the conscientious man in every community and every time. The conduct reckoned to be just is very different in different countries and ages. In one country, primogeniture and the unequal portioning of sons and daughters are established rules ; in others, justice is held to imply an equal division of property among members of the same family. Some nations account it just to hold human beings in slavery ; others take a view diametrically opposite. An Oriental

sees nothing unjust in polygamy ; the western nations from time immemorial have branded it with the stamp of illegality and immorality. Now a conscientious man, in Combe's sense, is one that performs the obligations created by the society he lives in ; inasmuch as the fair expectations of other men are founded upon those. He that in Turkey would maintain four wives and as many concubines, if a conscientious Englishman or Frenchman, would adhere to monogamy, if only because the one woman that he may choose to marry counts upon the established usage of her own country. Without incumbering himself with the problem of the first origin of moral rules, Combe considers the adherence to such as are established the mark of the just man ; and he gives the following as the result of his inquiries. ' After more than thirty years' experience of the world in actual life and in various countries, I cannot charge my memory with an instance in which I have been permanently treated unjustly by an individual in whom the organs of conscientiousness and intellect were largely developed. A momentary act of injustice may have been done through misapprehension or irritation ; but after correct information has been furnished, and excited feelings have been allowed time to cool, I have found persons so endowed ever disposed to act on the dictates of conscientiousness. By persons so organized, I have never been maltreated on account of my differing from them in opinion, even when they dissented most widely from my views. On the other hand, I have been assailed by some opponents who have not scrupled to use falsehood, misquotation, and misrepresentation as weapons of attack. In their heads I have uniformly observed the organ of conscientiousness to be deficient.'

We believe it may be shown that Conscience, in the widest sense, is a thing very various in its character, and made up of various ingredients. But, confining ourselves

strictly to the conscientious man as thus defined, it would not be difficult to show that a regard to the feelings of our fellow-beings is the main characteristic or constituent. The conduct described would arise in any mind, that realizes acutely the pains of disappointed expectation caused in another man, by a failure in performing our incumbent duty towards him. What is termed 'sympathy' goes far to express this attribute, whereby we enter readily into the feelings of those that we are related to, taking upon ourselves as it were the smart of their known pains, and resenting the conduct of the persons causing them. Sympathy is a distinct fact of the constitution, involving intellect as well as matter of sentiment. He that is disposed generally to sympathize with the feelings of his fellow-creatures, and has an aptitude for reading and interpreting other men's states, cannot fail to be affected with a case of violated expectation—as when any one is the victim of unfulfilled promises, bargains, or obligations. On the other hand, a settled indifference to all pains and pleasures, that are not strictly our own, is apt to extend itself to the nullification of conscientious sentiment in matters of right and duty. If we never take upon ourselves the miseries of any one but self, it is not very likely that we shall feel a strong shock of revulsion at being the cause of misery by not paying our just debts or fulfilling our deliberate engagements. Feeling acutely, as men generally do, when they are themselves defrauded or wronged, some individuals confine the sense of pain solely to their own case; others have that enlargement of mind that enters into the state of a second person so placed, and being, so to speak, unable to divest themselves of his pain, they are strongly deterred from causing it. Of all the motives that make up the power of conscience in human beings, this attribute is on the whole the greatest security we have for the enjoyment of our social rights.

Conscience is so much a subject of education (and for

good reasons), that we must be especially careful in assigning a large or small development of it to natural endowment. Of course, when the same appliances have been brought to bear upon a number of minds with very different consequences, some showing a precocious aptitude for the discipline and others the reverse, we naturally resort to original differences to account for the phenomenon. When a man rises above his education, and is conscientious beyond his age, he is a fair case for phrenological examination. The shock that the system of indulgences gave to the mind of Luther; Bentham's revulsion at the system of legal procedure of his early days, by which fees were charged several times over for the same thing; and the impulse to become a social reformer that came over Fourier when he was made to take part in throwing wheat into the sea at Marseilles for the sake of raising prices;—are examples of the higher urgencies of our conscientious feelings, by means of which better standards are gradually forced upon mankind.

17. *Hope*.—‘The faculty produces the emotion of hope in general, without any propensity to act in a specific manner. It gives the tendency to believe in the future attainment of what the other faculties desire, but without giving the conviction of it, which depends on the intellect. Thus a person with much hope and much acquisitiveness, will expect to become rich; another, with much hope and great love of approbation, will hope to rise to eminence; and a third, with much hope and love of life, will hope to enjoy a long and happy existence. It inspires gay, fascinating, and delightful emotions: painting futurity fair and smiling as the regions of primitive bliss. It invests every distant prospect with hues of enchanting brilliancy; while cautiousness hangs clouds and mists over remote objects seen by the mind's eyes,’ &c. Combe, in this prose version of Campbell's immortal verse, describes a state of mind that

mankind have always recognised. And although the hoping temper belongs only to some constitutions, momentary flashes of it are, in all probability, experienced by every human being, so that in fact hardly any emotion is more universally intelligible when spoken of.

It is hard to make out what is meant by 'believing in the future attainment' of something, without having 'the conviction of it;' 'belief' and 'conviction' are as nearly synonymous as any two words in the language. The real question at issue is—what is the probable cerebral embodiment of the hopeful temperament—a local centre, or a pervading quality of the mass of the brain?—and, as a preliminary, we are called upon to analyse the feeling to the utmost, and to advert to the external influences that are known to stimulate or depress it.

Now, it seems to me that the phrenologists have in this instance stated as the primary, what is but the secondary, or derived, effect. It is an undoubted fact of our nature, that when we are very much charmed, fascinated, delighted from some present cause, and when in such a condition we turn our thoughts upon the future, the feeling of the moment colours that future with its own tints. It is not that we hope first and enjoy afterwards, but that we enjoy first and hope afterwards, in so far as the temper of the mind is the cause of hope. The sanguine temperament might be shown by a large induction of experience to be the happy or enjoying temperament. We know that an outburst of good spirits makes the mind for the time sanguine, while depression and despondency are names for the state that includes both present misery and melancholy forebodings.

To lay open the sources of hope we ought to determine all the sources of belief in general. Experience is the legitimate and rational ground of future expectation, but not the only ground, nor always the most efficient, as human beings are constituted. Two other causes may be proved

to operate, namely, the instinctive proneness of the mind to act somehow (implying a belief in the course pursued), and the influence of all the emotions.—(*Emotions and the Will*, p. 580.) Experience teaches the farmer to expect a good return for the labour and capital expended in draining and enriching his fields; but his own natural temper for action and emotion will materially affect the degree of his hopefulness: the same grounds of experience will have very different results in two minds. The pleasing and joyous emotions prevailing will give a confident tone, the painful will have the opposite tendency; while the determination to one class rather than another is a fact of the natural temperament, which phrenology explains by the supposition of a special organ. ‘Whether this be the cause or not, we are compelled to state the case in a much wider form. The organ of hope is the organ of Happiness; the organ of cautiousness is the organ of misery.

Few problems can be more interesting, than to assign the constitutional peculiarities that fit an individual for sustaining a happy frame of mind, with slight dependence on outward circumstances. It is incontestably true that some men have by nature a mental elation and a flow of spirits, which no amount of good fortune or good management can impart to others. We are accustomed to account in part for the difference by bodily health, and especially by a very sound state of the digestive functions. The adage couples this with ‘a bad heart,’ which may be amended so as to contain more truth, if we say an ‘easy sense of obligations.’ Small forethought as regards self, and small conscience as regards others, certainly keep off much of the load that weighs upon the happiness of an individual. To entertain obligations strongly, on the supposition that they are numerous, is to have in the view a host of possible evils to be guarded against by a multiplicity of actions on our part, and it is difficult to sustain a high flow of enjoy-

ment in such circumstances. It is, however, disguise the fact as we may, the natural tendency of the happy temper not to take to heart those remote contingencies to self or others; the very conception of evil is repelled by a mind of that description. A certain largeness of nature is requisite in order to combine in force things that pull so oppositely as a buoyant, sanguine temper, and a circumspect and conscientious determination. We should not look for such a coalition in a mind of ordinary dimensions. An enthusiastic friend of Cromwell has said that 'in the darkest perils of war, hope shone in him like a pillar of fire, when it had gone out of all the rest;' a truly remarkable testimony to the mental force of the great Protector, if we can believe it. A very circumspect man in an arduous and perilous position, like Cromwell or Wellington, may be calm outwardly and even inwardly, but if he is much elated besides, the combination is almost above human.

There is no faculty in the phrenological system more decisively affected by general temperament than the one we are now considering, of which it is a sufficient proof to cite the changes that come over the same individual in this respect. Advancing years seldom, although sometimes, fail to destroy the illusions of hope, but not before blunting the edge of pleasure. Good and bad health notoriously operate in causing fluctuations in the hopeful tone of the mind, by confirming or sapping the powers of present enjoyment. And if so, the difference between one person and another may be reasonably accounted for by differences of temperament—that is, varieties in the quality of the brain and in the organs closely related to it. It is true that we often find high enjoyment, with its concomitant, hope, in feebleness and prostration of the general organic functions, but we are still left to suppose that the texture of the brain itself may be sound and vigorous in that particular property of sustaining the flow of animal

spirits. It is only after all these influences are allowed for, that we are at liberty to look for an organ of hope at the bottom.

The genuine form of the sanguine disposition is that which throws off the shock of disaster quickly, and rallies from depression sooner than the generality of minds. There is a temper that is liable to great extremes of elation and despondency, according to the influence that is uppermost at the time. We are not to accept the sanguine phase of such natures as an indication of hope; to judge them properly we must take something like an average condition, which average undoubtedly, as regards both present pleasure and warm anticipations of future good, stands much higher in some men than in others, outward circumstances being nearly equal.

On the whole, we must suspend our judgment as to the position taken up by phrenology on this point. We cannot deny that the peculiarity in question may have a corresponding local development, but with so many other assignable causes, the elimination of such an organ is peculiarly difficult to accomplish. If there be any one property of mind more likely than another to depend on the general quality and organization of the brain, it is this, looking among other things at the possibility of producing temporary manifestations of it to any amount by administering a narcotic stimulant; for we must suppose that these stimulants operate on the nervous substance as a whole. The disposition to enjoyment is not unreasonably presumed to be a general or pervading peculiarity of the mind and of its physical basis, quite distinct from the susceptibility to special modes of pleasure or pain, to odours, music, benevolence, &c. If we could decisively attribute the aptitude in question to a fulness in the head, apparent to every observer, there would be something to be said in palliation of the practice of infanticide among

some ancient and modern nations, provided the victims were selected by phrenology on the ground of small hope and large cautiousness ; for why should we rear a human being whom certain misery awaited under every possible variety of outward fortune ?

The present organ lies in the middle of the crown of the head, right and left of veneration. Spurzheim made the allocation, but Gall held out against it, and to the last considered the function of this part of the brain as unascertained.

18. *Wonder*.—The fondness for the marvellous, rare, and surpassing, is a peculiarity of the human mind established beyond the possibility of question. Belonging in some measure to all men, we find it very much exalted in some. Gall, in determining the organ of this sentiment, had first in his eye those persons that were the ready believers in ghosts and apparitions, a number of whose heads he examined, and compared them with the busts of Socrates, Joan of Arc, Tasso, Swedenborg, and Cromwell, who all gave way to the notion of holding communings with supernatural agencies ; and he came to the conclusion that a certain part of the head, at the side and forepart of the crown, close upon the arch of the brow, was the seat of the feeling of the marvellous. Spurzheim gave the organ a wider scope, and with seeming propriety. He took in the class of persons who are specially ‘amused with fictions, tales of wonder, and miraculous occurrences. They find in every passing event extraordinary and wonderful circumstances, and are constantly searching after whatever can excite admiration and astonishment. In every age and under every sky, man has been guided and led by his credulity and superstition. The founders of all nations have had a fabulous origin ascribed to them ; and in all countries miraculous traditions and marvellous stories occur in ample abundance. There are many disposed to

believe in dreams, sorcery, magic, astrology, in the mystic influence of spirits and angels, in the power of the devil, in second sight, and in miracles and incomprehensible representations of all sorts.' Combe's observations are in the same general direction. 'I have met with persons excessively fond of news which, if extravagant, were the more acceptable; prone to the expression of surprise and astonishment in ordinary discourse; deeply affected by tales of wonder; delighting in the *Arabian Nights' Entertainments*, and the mysterious incidents abounding in the *Waverley Novels*; and in them I have found the part of the brain in question largely developed.' He contrasted those with others of small development in the same region, whom he found to manifest a staid soberness of feeling. They were rather annoyed than otherwise with the new and strange, and had no taste for narratives leaving the beaten track of probability or reality, or soaring into the regions of supernatural fiction. Spurzheim and Combe also agree in considering wonder as an element of the religious sentiment, raising that sentiment to the fanatical pitch when unusually powerful.

19. *Ideality*.—Gall allocated an organ on the temple to the peculiarity of mind that distinguishes poets. 'The first poet whose head arrested his attention by its form, was one of his friends who frequently composed *extempore* verses when least expected to do so; and who had thereby acquired a sort of reputation, although in other respects a very ordinary person. His forehead, immediately above the nose, rose perpendicularly, then retreated, and extended itself a good deal laterally, as if a part had been added on each side. He recollected having seen the same form in the bust of Ovid. In other poets he did not find, as a constant recurrence, the forehead first perpendicular and then retreating, so that he regarded this shape as accidental; but in all of them he observed the promi-

nences in the anterior lateral parts of the head, above the temples.' Reviewing the portraits and busts of the poets of all ages, he considered this configuration of head as belonging to them all : as in Pindar, Euripides, Sophocles, Heracides, Plautus, Terence, Virgil, Tibullus, Ovid, Horace, Juvenal, Boccaccio, Ariosto, Aretin, Tasso, Milton, Boileau, Pope, Young, Voltaire, Klopstock, &c. Gall termed the prominence in question the organ of Poetry, a safe designation, expressing only the fact that he had observed it as constant in the heads of poets. Spurzheim, however, thought a further analysis necessary ; and in pursuing this analysis he and his brother phrenologists have landed in perhaps the greatest imbroglio that their science has yet presented. The clear glance of Mr. Samuel Bailey has caught them up here. Illustrating one of the maxims that he lays down as necessary to a sound phrenology, namely, that 'in order to establish an organ there must be a definite class of mental phenomena proved by appropriate evidence to be connected with it,' he quotes from Combe to the following effect—'The faculty of ideality produces the feeling of exquisiteness and perfectibility, and delights in the *beau-ideal*. The knowing and reflecting faculties perceive qualities as they exist in nature, but this faculty desires something more exquisitely lively, perfect, and admirable than the scenes of reality. It tends to elevate and endow with splendid excellence every idea conceived by the mind, and stimulates the other faculties to imagine scenes and objects invested with the qualities which it delights to contemplate, rather than with the degree of perfection which nature usually bestows. It is this faculty which inspires with exaggeration and enthusiasm, which prompts to embellishment and splendid conceptions.' On which Mr. Bailey observes :—

'Mark the number of things which a single faculty or organ is here represented as doing ; it produces feelings,

and itself experiences delight : it also desires what is preternaturally requisite, as well as rejoices ; further, it endows all ideas with splendid excellence ; it stimulates other faculties to exercise their imaginations ; it inspires with exaggeration and enthusiasm, and it prompts to embellishments and brilliant conceptions. In this crowd of operations, real and fictitious, huddled together without congruity, you seek in vain for any principle of classification : the author could not have had any distinct class in his mind, and it is difficult to surmise what sort of evidence he fancied he had to prove that these various mental phenomena (many of them wholly imaginary) are alike the results of movements in the organ of ideality. He seems not to have been at all aware that for the assignment to the organ of every different kind of operation described, separate grounds are indispensably required. For instance, assuming it to have been indisputably established that ideality “delights in the *beau-ideal*,” we cannot fail to see that distinct evidence must be adduced to show that it also performs the very dissimilar function of “inspiring with enthusiasm.”—*Letters on the Human Mind*, p. 222.

Not alone in the passage above quoted, but also throughout his whole handling of the present subject, Combe displays an amount of vacillation and confusion that is irremediable, owing doubtless to the imperfect state of the existing analysis of the whole æsthetic region of the human mind. The designation ‘ideality’ is a stumbling-block at the very commencement, and in no way seizes the main feature evidently intended throughout. It is apparent that the susceptibility to Fine Art, otherwise expressed by the sense of Beauty, and the corresponding faculty of producing works of art, are what the illustration has in view. Imaginative poetry ; splendour of eloquence and poetic feeling ; the enjoyment of the beauties of nature ; refinement in manners ; the taste for painting, sculpture, architecture,

and all the ornamental arts; correct taste in dress and household arrangements; are the points dwelt upon by Combe in expounding the present faculty. But Ideality is a very general word, and would include many things beside the circle of the æsthetic tastes. The contrast to it is *reality*, or *actuality*, and anything that we possess only in idea would be an ideal emotion. He that lives in an atmosphere of the fine arts and elegancies, but whose tastes incline to business or science, is filled with ideal longings after the farm, the manufactory, or the laboratory. Whatever we desire beyond our actual condition is our ideal, no matter what direction that takes. The generality of men dream of wealth, power, splendour, honour. An aspiring artisan thinks what it would be to govern a realm; Louis XVI., when closeted with his ministers, constantly ran off in imagination to his turning-lathe and his forge. Some aspirations are considered more estimable, noble, and elevating than others, such as the love of beauty, self-improvement, or the good of mankind; but everything that a human being can possibly set his heart upon, and strive to attain, is his ideal. Discontent of any kind is a source of ideality. Combe is aware of this, and talks of the abuse of the faculty in such a mind as Rousseau, who was such an inveterate dreamer that the actual world became to him an object of utter distaste. There is a real virtue in the thorough reconciliation of the mind to one's actual lot, after having taken all practical means of rendering that as good as possible.

Ideality may thus be seen to be the wrong designation for what is plainly intended. The truth is that every one of the phrenological sentiments leads to the formation of ideals; wonder large makes a man invent marvels, and benevolence may operate solely in an ideal direction. It is the class of sentiments touched by the various productions of Fine Art that are the subject in hand, and the

organ discovered by Gall in the heads of poets must refer to these, if we are to admit the extended applications made by Spurzheim and Combe. This is what we have actually to discuss in a criticism of the faculty in question. Now, although these æsthetic sensibilities are genuine and powerful emotions of the human mind, no small difficulty will be experienced in tracing them to a single root, so as to localize them in the one organ pointed out by Gall. A work of art usually owes its success to the author's power of awakening a plurality of strong emotions. The *Iliad* of Homer provides gratification for the Combative and Destructive propensities of our nature, and for the sentiments of Wonder and Veneration, as well as for the feeling called the Beautiful. The interest of story is likewise an essential in the most popular form of literature. The properly æsthetic sensibility is in fact a sort of *residuum*, to which we refer all the charm that cannot be accounted for otherwise; and undoubtedly there are certain effects common to the productions of high art, over and above such emotions as those now mentioned. The most general designations that we can apply to those peculiarly artistic effects are such names as harmony, keeping, fitness, melody, concord, &c., implying that the parts of a complicated structure are so brought together that their concurrence in the mind, instead of being either indifferent or disagreeable, yields a certain charm derivable only from composite objects. 'It is in Greek architecture the harmony of the columns and the entablature; in Gothic, the harmony of the spire with the arch; and in all styles, the harmony of the decorations with one another and with the main body. In sculpture, it is the suiting of expression to mind, and of attitude and drapery to expression. In painting, it is the composing and grouping of things such as will in different ways excite the same emotion. In speech it is the suiting of the action to the word, the

sound to the sense. In poetry, which combines the spirit and effect of music and painting, the scope for fine harmonies has scarce any limit.' This being so, a nice question arises, how far there can be a *general* susceptibility to this effect, apart from the special susceptibilities to the different material made use of in the various compositions. Great sensitiveness to colour, as shown in a delicate discrimination of different shades, would almost imply a lively feeling of the harmonies of colour; a good musical ear, tested by a fine sense of musical pitch, is never known to consist with a bad appreciation of musical concords. The phrenological organs of Colour, Form, or Tune, would therefore severally include artistic sensibilities to Landscape, Painting, Sculpture, or Music; and nothing would appear to be left to a sense of beauty in the abstract. Until this abstract feeling is better defined than at present, it is impossible to accept the evidence tendered in favour of the present organ. No doubt the number of observations alleged to have been made as to the coincidence between great breadth of head between the temples and the poetic mind, or the artistic mind generally, are to be held as a presumption or probability of some possible connexion of the sort indicated, but the difficulties of the present phrenological rendering of that coincidence are insuperable.

One further remark is pertinent here, having also a general application to the greater number of the faculties that remain to be discussed. The mere *enjoyment* of a fine art supposes nothing more than a sensibility to the peculiar subject, whether music, poetry, or any other. The *production* of a work of art obviously includes this and something more; that something being a command of the instrument or material involved. A musician must have, with a musical ear, either vocal power, or manual dexterity suited to some instrument. A painter, in addition to the sense of colour, requires handicraft skill, and intellectual

conceptions. An elocutionist needs a flexible voice, and a good memory for models of elocutional display. An orator must have both a sense of effective combinations of spoken language, and a faculty for storing up phraseology to be employed in working up such combinations. So that corresponding to every art there are certain demands upon the productive powers of mind; and a great artist is he that combines the requisite resources with the artistic sense constituting the enjoyment and appreciation of the work when produced. Combe quotes from a brother phrenologist, Dr. Vimont, some observations to the same purpose, although Combe himself, both in the present subject and in others that follow, confuses the artist with the lover of art. 'I do not think,' says Vimont, 'that the sense of the beautiful, or taste, should be ascribed to the poetic talent; some great poets and painters and some celebrated sculptors, are occasionally deficient in taste in their compositions. A few examples will show more strikingly the truth of this assertion. The productions of literary men and poets, like those of artists, may present, together or separately, three well-marked objects of contemplation, the successful combination of which constitutes a perfect production: 1. The materials; 2. The disposition or arrangement of the materials; and 3. Invention.' (This threefold division is unnecessary for the end in view. The materials and the invention both concern the same thing; the second head expresses the control exercised by the *feeling* of the effect to be produced.) 'The first (the materials) results from the action of the perceptive powers and of the constructive faculty. The arrangement or disposition of the materials appears to me to belong to the sentiment of the beautiful, or of taste; finally, invention springs from a powerful development of all the reflecting faculties.' He then goes on to say that some painters show good taste without great genius: the

feeling is good, but the resources are scanty. Virgil surpasses Homer in taste while inferior in genius; that is, in the aggregate of intellectual forces that are concerned in bringing together the poetic materials. 'The pure, the correct, the beautiful Racine yields, undoubtedly, to Corneille in energy and elevation of expression. Shakspeare, whose poetic genius no one will deny, sins often against taste, even in his best compositions. How great a difference, also, is there in the sentiment of the beautiful between Michael Angelo and Raphael.' Bacon might also be cited as a mind of extraordinary opulence of conceptions, but with little æsthetic sensibility in the employment of them. Like Shakspeare, his intellectual abundance produces a great many effects; sometimes he is graceful, again sublime, now witty, at other times he originates a most felicitous truth; but, as not one of these qualities is sustained throughout, we may be permitted to doubt whether he was in any great degree sensitive to the effects that he actually produced. Thus an artist of high genius may be inferior to a man of no creative power whatsoever, in the element of taste, the only element characteristic of fine art. Creative power, even by the phrenologist's own showing, is the offspring of many faculties. Further illustrations of this important distinction will occur under some of the following organs.

20. *Wit, or Mirthfulness*.—Gall, who did not often venture on minute metaphysical analysis, referred for the meaning of wit to the feature that predominated in the minds of Rabelais, Cervantes, Boileau, Racine, Swift, Sterne, Voltaire. 'In all these authors, and in many other persons who manifest a similar talent, the anterior-superior-lateral parts of the forehead are prominent and rounded. When this development is excessively large, it is attended with a disposition, apparently irresistible, to view objects in a ludicrous light.' Phrenology found the explanation of the

ludicrous susceptibility of our nature very imperfect, and left it in the same state. The lengthy dissertation of Combe on the characteristics of wit has done nothing to clear up this subtle point. Here, as in ideality, he confounds the susceptibility with the creative power, which may or may not accompany it, and is at no pains to separate the different effects that have passed under the name of wit. How necessary this separation is, may be judged from the fact that Leigh Hunt published some years ago a volume of extracts, entitled *Wit and Humour*, in which he included passages notable only for poetic beauty or elegance.

Until the character of the ludicrous emotion is finally determined, we are in no position to judge of the antecedent probability of the allocation of the present organ. We are not as yet entitled to assume it as an ultimate fact of the human mind. There are many cases of the production of laughter that connect it very decisively with the elation of the sense of power, a suggestion originally made by Hobbes, although not stated by him in an unexceptionable form. It might not be easy to show that every species of witticism comes under this general fact, but there is the more reason for a minute examination to decide which does and which does not admit of being so referred. But the sentiment of power, although not recognised as a whole by phrenology, may be shown to enter into Combativeness, Destructiveness, and Secretiveness, and is doubtless an element in Acquisitiveness. Combe remarks a case of a boy with acquisitiveness large, who laughed when any one gave him a penny; and mentions also a lady with large destructiveness, who involuntarily laughed when she saw an instantaneous misfortune happening to any one, such as the breaking of an arm, or falling in the mud. It is an interesting problem to trace if possible the transformed workings of the same elation of power in the ludi-

cious combinations of the various departments of comic art. The undecided state of the question renders it premature to come to a conclusion as to the existence of an organ of wit, although no exception can be taken to placing upon record such coincidences as Gall and others may have observed in this particular case. The value of the observations cannot, however, be very great, so long at least as the *meaning* or compass of the faculty in question is not precisely stated; and especially while the element of witty *creation* is considered as a part of the case. This power is relevant only as it presumes the existence in the same mind of the ludicrous susceptibility which it is engaged in gratifying; the sense of enjoyment may be very strong without the individual possessing the ability to devise witty or laughable combinations. Combe expresses the state of the case exactly in one place where he remarks: 'The organ in question manifests the sentiment of the ludicrous, while wit consists in any form of intellectual conception combined with this sentiment;' the intellectual power being dependent on distinct faculties. But as to the definition of the ludicrous itself he gives no specific indication, except in the following very obscure phraseology: 'It appears to me that the ludicrous is merely *a mode of existence*, of which almost all natural objects are susceptible, but which is not the sole or necessary character of any of them;' which he says 'explains why the most acute writers have failed in giving a satisfactory definition of wit.' Without being aware of it, he comes closer upon a real explanation when he says: 'The sentiment of the ludicrous, acting in combination with self-esteem, produces ridicule. *There is always an implied superiority in the individual who laughs at others.*' Exactly Hobbes's language; and although the statement is not strictly correct, we may fairly challenge the production of any instance of the ludicrous, no matter how much incongruity is manifested, where the

effect is to praise, compliment, eulogize, or elevate the position of some one, without taking down or detracting from the same or any other person, in any mode whatsoever. There is a fundamental opposition between the laughable and the admirable, praiseworthy, dignified, or reverential, that ought to cast some light on this protracted and subtle dispute.

21. *Imitation*.—The organ of mimicry, according to Gall ; who first gave it a place in the cerebral chart, namely, on the fore part of the crown of the head, on either side of benevolence. Combe says it appears to him ‘to confer the tendency to represent, by sounds, gestures, looks, and forms, the ideas and emotions generated by all the other faculties. It is a power essentially of expression ; and does not originate any special sentiment or emotion.’ In other words, it is the faculty of the actor and the dramatist, and was highly developed in Garrick and Mathews.

It seems to me that whether or not mimicry be a simple faculty, the whole power of dramatic embodiment is certainly a compound. There is both, as remarked above with reference to ideality and wit, a sensibility and an active endowment, one of which may exist without the other. Take the imitation of the voice, or of articulate speech. There is first a keen susceptibility of the ear to the particular effects, and next the exercise of the vocal organs to reproduce those effects, which organs must possess the compass and flexibility requisite for the imitation. A very acute ear alone, the voice being of narrow range and of little aptitude for nice adjustment, would fail to constitute a mimic ; an insensitive ear, on the other hand, in company with never so good vocalization, would be barren of result from not supplying motive. The prime requisite is the delicate sensibility ; that being present, the active organ will be moved to the best of its powers ; and may be much improved by being put to use in the cause. The

musical ear will urge the voice to reproduce melodies; the articulate ear will lead to elocutional imitation; the eye for graceful and dramatic attitudes will so possess the mind with an idea of what it sees, that the individual will be spurred to the embodying of such displays in his own person. A command of organs and muscles apt for the purpose will of course be a great encouragement to proceed with the work, just as the opposite might nip imitation in the bud. 'The mimic needs in himself a large compass of activity and movements, a various spontaneity, and adds thereto a well-marked susceptibility to the actions and demeanour of other men. In truth, if his talent be of the highest order, it is because his mind and his actions are not his own; whatever he does, he is haunted by some other person's example, or some foregone model. It is related of Mathews that, while he could imitate the manner and even the language and thoughts of the greatest orators of his time, he was incapable of giving a simple address in his own person, with any tolerable fluency.'—(*Emotions and the Will*, p. 225.)

Imitation is, in fact, a *general* power, with no specific reference to the dramatic faculty. Every susceptibility of the human mind that human acting can gratify, leads to imitation where the susceptibility is acute and the corresponding activity adequate. The faculty of tune leads to musical imitation, if there be either vocal power or the aptitude for instrumental performance; the sense of form leads to attempts at drawing, and of colour to painting. So we have imitativeness in all the common mechanical arts. If it is intended to appropriate an organ to the dramatic faculty, some designation specifically implying that faculty ought to be found. The sensibility to stage display is one of the many æsthetic elements of the mind, and when accompanied with the requisite active endowments, lays the foundation of an actor; without the corre-

sponding active organs, nothing would appear except a strong play-going taste. On the whole, I cannot think that the present and the two preceding organs are happily laid out. Taken together, they constitute a sort of artistic region of the brain which may possibly predominate in artistic minds, and be deficient in those of prosaic and matter-of-fact tastes; but their scope, taken either collectively or individually, is badly defined, and wants a thorough revision.

CHAPTER V.

THE INTELLECTUAL FACULTIES, ACCORDING TO PHRENOLOGY.

THE phrenologists subdivide the INTELLECTUAL FACULTIES into three orders: the *external senses*; the *internal senses*, or the *perceptive faculties*; and the *reflective faculties*. The external senses are disposed of in a very summary manner, as having little place in the system; the different classes of *ideas* that the mind derives through sensation are referred to the second division, the internal senses, otherwise called perceptive faculties. Of the intellectual faculties, fourteen in number, twelve are *perceptive*; the *reflective* are Comparison and Causality.

‘The organs of the intellectual faculties are small, but active. If they had been as large as those of the propensities, we should have been liable to intellectual passions. The comparative calmness of our reasoning processes is probably the result of the small size of these organs.’—(Combe, vol. ii. p. 28.) The truth is, however, that many of these faculties attain the pitch of intensity denominated passion. Combe admits that Tune, the foundation of music, is a source of strong pleasure; but so also, in certain minds, is Form, Colouring, Order, Language, &c.

As regards the first in order of the intellectual group, Individuality, we shall for once take a liberty with our subject, and place it last among the perceptive faculties, on the ground that the apparent simplicity with which it is invested in the phrenological handling is delusive, and that in reality it presents a compound made up of nearly all the

other members of the perceptive class. This will be apparent when we come to examine it.

23. *Form*.—Gall being desired to examine the head of a young girl who had an extreme facility of distinguishing and recollecting persons, he found her eyes pushed laterally outward, and a certain squinting look ; after innumerable additional observations, he spoke of an organ of the knowledge of persons. The general effect of a large development of this organ is to throw the eyes farther asunder. If it be true, as it probably is to a great extent, that the discrimination of personal appearance turns upon difference of form, or configuration, Spurzheim was perfectly right in generalizing Gall's designation into a faculty of Form. There is, however, no reason why the sense of Colour should not enter into the discrimination likewise, as far as human beings, animals, plants, and many other objects are concerned ; for the variety of tint and complexion in individuals is nearly as great and as well marked as the variety of shapes. The decisive instances of a faculty of form are such objects as written language, arbitrary symbols, outline drawings, the shapes of crystals, plants, and animals in the skeleton state ; and other instances where, although colour is present, the form is the predominating circumstance. The naturalist must possess the faculty in good measure ; the painter, sculptor, and poet, are assisted by it ; to the designer it is no less essential ; the mechanical operator in many crafts, as the engineer, carpenter, engraver, &c., is very much dependent on the same nice appreciation of differences in the shapes of things ; and indeed any one occupied in imitating or fabricating things whose principal characteristic is their shape, should be well endowed in this region. The Chinese are considered to have the development conspicuous ; and undoubtedly their written language gives as much scope for its exercise as anything that can be named, either in nature or in art. As a matter of course,

a portrait painter should have the faculty in good measure. It was one of the many organs largely developed in the massive head of Cuvier.

The organ of Form, as now explained, is confined to *visible* form, and is therefore an endowment superinduced on the sense of sight. No allusion is made to the perception of form by touch, the exclusive instrument of the blind, and an aid to vision in other instances. A psychologist would view the faculty as related to the cerebral centres of the organ of sight wherever they may lie, or rather of the muscular part of the apparatus of vision. In following the shapes of things, the eye is essentially *active*; notwithstanding the assertion of Sir W. Hamilton and others, that the mere optical or retinal sensibility would give the perception of form and size. In fact, we do employ the intervention of the muscular movements of the orb, and it is their sensibility, supported by adequate cerebral power, that determines the nice shades of discrimination as regards the property in question.

24. *Size*.—‘There is an essential difference between the idea of Size and that of form; and the faculty of distinguishing form differs from that of distinguishing size. The form may be the same, and the size different.’ ‘The organ is placed at the internal extremity of the arch of the eyebrow.’ Not content with assigning separate organs to size and form, Dr. Vimont would constitute Distance as a distinct cognition with an organ of its own, and although Combe and Spurzheim decline to concur in this allocation, they are confident as regards the separateness of the two others.

This position of theirs, we are convinced, will not stand on examination. An estimate of form that excludes an estimate of size may be pronounced an impossibility. For how do we perceive the difference between a circle and an oval, if not by the difference of size, or the greater elonga-

tion of the one figure as compared with the other? Suppose two members of the same family, having a strong family likeness, but differing in the circumstance that the face of the one was very slightly longer than the other, the discrimination of the two would obviously be a nice discrimination of size. But the conclusive argument is to be found in the science of mathematics, which has never been able to discover a method of defining form, except by means of size. The delineation of curves, by what is called the system of co-ordinates, and of which there are two sorts, is effected by stating the proportions, in one case, of two lines drawn in different directions to every point of the curve; and in another case, of one revolving line with the angle of its revolution; in both instances the statement gives exclusively the sizes or magnitudes of these co-ordinates. The phrenologists have never adverted to this significant practice, which, after all, is only a scientific rendering of the fact above alluded to, that to be nicely discriminative of the degree of elongation of an oval or an oblong, it is essential to feel acutely the difference of length of the figures compared, and if this is felt, the form is determined as a matter of course. No other susceptibility could add in any degree to the discrimination thus made.

We must, therefore, accept in preference the modified view of Sir G. Mackenzie, himself a phrenologist, that, 'magnitude, size, length, breadth, thickness, height, depth, distance, being all, strictly speaking, referable to extension, the faculty which we are in quest of is probably that of *space* in general.' Or rather say, that as touch is excluded from the case, the Muscular susceptibility of the eye is the real power, a power not owing solely to the organization of the six muscles of the orbit, but to the nervous centres that originate the third, fourth, and sixth pairs of cerebral nerves, by which these muscles are stimulated to act. If the other phrenologists would close with the

suggestion of Sir G. Mackenzie, and unite the organs of form and size, which adjoin one another at the inner angle of the eye, we should gladly listen to any evidence that they may have to offer, of the coincidence between a large development of this region, and nicety of ocular perception in all that regards the magnitudes, shapes, distances, and proportions of extended matter; and if the observations were sufficient to produce a conviction of the soundness of their position, we should then say that probably the part of the brain indicated is either itself the cerebral centre of the third, fourth, and sixth nerves, or is thrust into prominence by the enlargement of a neighbouring part in the interior, which is the true centre. Unfortunately, however, we are told that the frontal sinus throws a difficulty in the way of observing the present organ; and the negative evidence is therefore what is chiefly relied on in proving its existence and functions.

25. *Weight*.—‘Persons who excel at archery and quoits, and also those who find great facility in judging of momentum and resistance in mechanics, are observed to possess the parts of the brain lying nearest to the organ of size largely developed. It is large also in the mask of Brunel, the celebrated engineer and mechanician.’ ‘In blowing crown glass, the workman dips the end of a hollow iron tube into a pot of melted glass, and takes up as much of it as will suffice to make a circle. To form a full-sized circle, the quantity raised should be nine pounds and a half; and when visiting a manufactory at Newcastle, I was told that an expert workman will generally hit the exact quantity, and very rarely deviate to the extent of two or three ounces, either under or over it. I observed the organ of weight very largely developed in the successful workman. I have observed it large also in all players on the harp, violin, and pianoforte, who are remarkable for exquisiteness of touch.’—(Combe, ii. 46.) All this is explicit

and intelligible; and we have no difficulty in admitting the susceptibility to different degrees of expended energy—whether in raising weights, in resisting moving bodies, or in putting tools in motion,—as an ultimate power of the human mind, and unequally manifested among individuals. We consider it as related to the so-called ‘muscular sense,’ or the feeling connected with muscular exertion. The preceding organs involved the muscularity of the *eye* exclusively, this involves the hands, arms, and the body generally. When we exert our force in any piece of work, we are conscious of the amount put forth; that is, we are distinctly aware of any increase or diminution of that amount. The porter carrying a hundredweight on his back, knows if any one takes off or puts on twenty pounds; in the hand, we should probably mark a difference of an ounce in half a pound. The delicate graduation of our energy in mechanical operations depends on the natural and acquired delicacy of this sense of power expended, of ‘virtue passing out of us,’ so to speak. Up to this point there is no ground of dispute. But there seems a tendency in some phrenologists to extend the function beyond the compass of handicraft skill, and to introduce it as an element in the mind of the contriving engineer, and the mathematician who discusses force by algebraical symbols, without ever putting his hand to any piece of mechanism. Now we may admit that engineers of eminence usually combine the lower aptitudes of the workshop with the higher powers of design; and still more readily do we grant that the experimental philosopher stands in need of the present endowment to give him dexterity as a manipulator; but it is not absolutely essential to engineering contrivances, and not at all essential to a writer on theoretical mechanics like Laplace. It is said to be large in the head of Newton, which is not improbable; for we all know that Newton’s greatness in the experimental walk was

second only to his mathematical and speculative greatness. So it ought to be large in Hook, Priestley, Cavendish, Faraday, Wheatstone, and many other experimental philosophers that could be named.

In discussing the phrenological organ of Constructiveness, we had occasion to point out the clash between the functions of that organ and the present. Constructiveness was stated by Combe to be large in operative surgeons, painters, sculptors, engravers, and in cabinetmakers and tailors that excel in their art. Now a very full endowment of weight, as defined above, would give to the men of all those professions every conceivable superiority of mere manipulation; and we can see nothing for constructiveness to do farther, except to impart in a still fuller measure the very same susceptibility to expended force. When it is said that the elder Herschel had large constructiveness because his excellence as an astronomer was in part owing to his being able to fabricate improved telescopes by his own hands, we may reply, the same faculty is fully conferred by the organ of weight; unless invention or originality of design were also specified as an essential of the first-named faculty, which is certainly not the case. It is true that a *fondness* for mechanical fabrication may exist without much skill of hand; our tastes and our aptitudes do not always concur; but phrenology has not adverted to this distinction, nor taken any step, so far as we know, that would rebut the accusation of having assigned two distinct organs to one and the same faculty.

We cannot feel very much satisfied as to the intrinsic probability of the allocation of the present organ. The faculty comprehends a very large part of our entire voluntary activity. The only muscular regions not included in it are the eyes, features, jaw, and voice. For it is not confined to skill of hand, but takes in all those adjustments of the body involved in walking upright,

skating, archery, quoits, tumbling, ball-tossing, and other feats of the acrobat; so that we may consider it as a general endowment of our voluntary activity, dependent physically upon the cerebral centres that give origin to the anterior, or motor, roots of the spinal nerves taken collectively. That a high development of those centres should be apparent merely as a small swelling in about one-fourth part of the extent of the eyebrow, is exceedingly improbable. On one hypothesis of the functions of the cerebellum, the grouping of muscular movements, as in flying, swimming, walking, &c., is attributed to that part of the brain; and it would not be unreasonable to suppose that a large cerebellum might aid also in the acquired groupings of mechanical skill. We must not, however, stop short of the hemispheres in our explanation of the control of the voluntary muscles, and it is not consistent with other facts to locate an energy so extensive and complicated in such a limited mass. We have conceded to phrenology the absence of inherent improbability in supposing the region of *conjoined* form and size to be connected with the centres of *three* cerebral nerves, the motors of the eye; but in the present instance, we have an organ of less magnitude raised to the importance of commanding the *thirty-one* anterior roots of the spinal system. It would be an exceedingly interesting result, if we could allocate with certainty the cerebral centres whence emanate the impulses to our voluntary movements, and which, when largely developed, give sensibility and delicacy of graduation to those movements; but we cannot say that phrenology has even started a plausible conjecture on this matter.

25. *Colouring*.—The organ for the sense and perception of colour is in the centre of the eyebrow. 'The faculty, when powerful, gives a delight in contemplating colours, and a vivid feeling of their harmony and discord. Those

in whom the organ is deficient experience little interest in colouring, and are almost insensible to difference of hues.'

In a discussion with Lord Jeffrey, who maintained strongly the Alisonian theory that Beauty is in all cases the result of association, it comes out that Jeffrey himself had a great enjoyment of bright hues, and a good recollection of shades of colour, notwithstanding that in him there was an actual hollow in the organ No. 26. Combe endeavours to meet one part of the difficulty thus presented by detecting Jeffrey in the admission that his pleasure had to do not with the *intrinsic* effects of the colours themselves, but with the other pleasing qualities that they suggested to his mind. 'He was pleased, for example, with the red of the flowers, not because it was a colour grateful in itself, but because it reminded him of the lovely season in which roses were produced, or of the blushes of youth and innocence; and he delighted in the blue of the peacocks' necks, because it excited the recollection of the unclouded sky. The painters, on the other hand, in whom the organ is large, state that all this is the very opposite of the sources of their pleasure from colours.' But we cannot concur with his view that discriminative 'perception is the lowest degree of activity of faculty,' and may be of a high order in minds that have scarce any enjoyment in the exercise of the sense. We want better evidence than any yet produced to convince us that a person may have a very acute perception of difference of shades of colour, and yet have a general indifference to the effects of colour in the landscape or in a painting. The usual case of a well-developed sense—whether sight, hearing, taste, or any other—is for the person to have the power both of enjoying and discriminating, although perhaps at the moment of making great discriminative efforts the enjoyment may be merged, according to a law of the human mind that forbids extreme activity of the intellec-

tual and emotional manifestations at the same instant. If good discriminations of shades of colour, such as Jeffrey was capable of, were compatible with a hollow in the centre of the eyebrow, what ought to be the development of the organ where even the discrimination is very defective, as so often happens?

It is not to be questioned that the faculty of being strongly affected with colours, whether in the way of acute pleasure or of delicate perception, or in both points together, is one of the distinct and ultimate susceptibilities of the human mind. We may, without any improbability, consider it as connected with a special cerebral centre, which centre we might naturally suppose to be the deep origin of the optic nerve. We should, therefore, be fully inclined to admit the evidence of the coincidences observed by phrenologists, the more so that the manifestations of the faculty are singularly free from ambiguity. The delight in flowers, in pictures, in coloured decorations, the sense of concord in composition, and a good memory and imagination for colours, mark out an endowment not to be mistaken. The consequences of it in the character are wide and deep. Perhaps more than any single thing that can be named, it stands at the foundation of the artistic nature, determining the mind towards poetry, no less than to painting, and away from science, giving a love of the concrete and a repugnance to abstractions. (See some good remarks on this head in Stewart's *Essay on the Beautiful*.)

27. *Locality*.—Under this designation is included the facility of remembering places. The organ was marked out by Gall, and its position on the head is over the eyebrows and on each side of the upward prolongation of the nose. Combe would extend its function to the power of remembering and imagining situations of scenery, such as belonged to Sir Walter Scott. He also declares it to be

large in many great astronomers—Kepler, Galileo, Tycho, and Newton; and would farther consider it as involved in the Geometrical faculty, as distinguished from the aptitude for numbers, or arithmetic.

It is hardly possible to avoid considering this faculty otherwise than as a derived power. Except in the case of those occult instincts attributed to some animals, such as dogs and cats, of finding their way back to places that they have been taken away from blindfolded, the recognition of place must turn upon either forms, or colours, or, as is most likely, on the combination of both. Accordingly, the power of discriminating and remembering localities would be only an application of the organs of Form and Colour, or of the united Muscular and Optical sensations of the eye. To have great knowledge of places, with little perception of either colour or form, may be safely pronounced a contradiction. No doubt locality is a *special* mode of employing the ocular sensibility, which we may or may not fall into. One might have a great natural aptitude for the requisite discrimination, and for remembering the characteristic marks of places, without turning the aptitude in that particular direction. We do not apply even our greatest powers to every imaginable use. A man may prefer studying the artistic points of the landscape, to noting the windings of roads and footpaths, or the arrangements of the tortuous streets of an antique city. The gift of locality, reposing as it does upon colour and form, would probably imply a peculiar *interest* in the wandering life, a traveller's taste, in order to stand out in distinguishing proportions.

28. *Number*.—The extraordinary faculty of numerical computation sometimes exhibited in mere childhood, and previous to instruction, led Gall to recognise a primitive power of number, having a local seat outside the external angle of the eye. Spurzheim and Combe agree in limiting this organ to arithmetic and algebra, and treat geometry

as resting on other organs, such as the foregoing. They found that the most celebrated calculators had no great aptitude in the higher mathematics.

We are not prepared at once to accede to the proposal of chalking out a primitive organ for this power of arithmetical calculation. The memory for figures and arithmetical processes may be only a special mode of the memory for naked forms and abstractions, which enters into the scientific intelligence generally. The power of form very strongly possessed, with *colour very deficient*, might issue in an arithmetical faculty, as one of its possible outgoings. We ought never to lose sight of the *negative* conditions that accompany great endowments; nor should we omit the effects of an overpowering *taste*, or liking, for some one intellectual exercise in concentrating the whole brain upon that one exercise to the impoverishing of everything besides. The extreme one-sidedness of these prodigies is a matter of common remark. If a calculating boy, having the outer angle of the eye very full, manifested, along with his numerical power, all the aptitudes belonging to the conformation of his head in other respects, we might say that the great development of No. 28, was the explanation; whereas, in point of fact, every other power is much weaker in him than if he had not been distinguished for number.

29. *Order*.—This is one of the small organs on the ridge of the eyebrows, being the most outward on the ridge proper. All these superciliary organs are admitted to be difficult of discrimination, both from the smallness of their size and from the uncertain development of the bony projection itself.

It is quite possible to assign one or more distinct meanings to this designation. We frequently see in men a proneness to order, method, and regularity, as means to some end that would be frustrated by the want of these; an army could not be kept in the field without a great

machinery of methodical procedure. No large and complicated transactions in business can go on in the absence of regularity in the various minor arrangements ; hence the love of order displayed by the head of a manufactory, may only mean his wish to carry on his business successfully. There may grow up in the mind, by association, as in the case of money and other things, a martinet attachment to the means without reference to the end ; but even in this case it was the end that first gave value to those means. We often see a morbid devotion to order for its own sake, as in the father of Frederick the Great, and in many men in military command, as well as in private life. These are examples that imply *weakness* of character, or actual deficiency in some positive elements, as much as, and perhaps more than, a distinct and independent development.

The only thing that we can assign, under the present head, as an original susceptibility of the mind, is the artistic Sense of Symmetry and regularity in objects presented to the eye. There is a pleasure in beholding things placed at equal and proportional intervals and in straight rows. Persons very sensitive on this point are pained by seeing anything out of line or distance. It is a susceptibility of an æsthetic kind induced upon the sense of sight, like the sense of time in music. Some people have the feeling in a high degree, and derive great enjoyment from regular figures and proportions in gardens, fields, architecture, and decoration ; while the same effects are wholly lost upon other minds. We may consider it as one of the minor sensibilities falling under the artistic group, and there can be little doubt of its being an ultimate and distinct feeling of our nature ; but we should despair of tracing on the head a definite swelling to correspond to so minute a peculiarity. Perhaps the best mode of designating it would be a *muscular harmony of the sense of sight*.

30. *Eventuality*.—‘ This organ, when large, gives promi-

nence or rounded fullness to the middle of the forehead.' 'The function of the faculty is to take cognizance of motion or active phenomena, indicated by verbs. In such expressions as the ROCK *falls*, the HORSE *gallops*, the BATTLE is *fought*, the substantive springs from Individuality, the verb from Eventuality.' Combe draws out a long antithesis between these two faculties: they both imply the concrete or full-life picture, as contrasted with the naked abstractions that science deals in; but the one is still-life (Individuality), the other is movement and action. Two persons go to a military review: one notices what regiments are in the field, by attending to the uniforms of the men; the other watches and remembers nothing but the movements; the one has individuality strong, the other eventuality. Some authors, as Sheridan, Le Sage, De Foe, Swift, Walter Scott, exhibit both faculties in a high degree; Pope produces very lively descriptions of action and movement, 'almost to the exclusion of substantive existence, with its attributes of form, colour, size, and proportion.'

The real truth in this matter is, we believe, that Eventuality indicates rather a defect in the sensibilities to colour, form, &c., and that this is made up by the strong stimulant that motion gives to the system. We may have a love of still-life pictures and a love of movement as well; but a feebleness in the first is likely to throw us more exclusively upon the other, the more telling of the two. Children appreciate action and stir from their very earliest days: the delights of a tranquil scene, or a well-grouped picture, are a much later phase of character. Combe says that eventuality is necessary to a good narrative, and that one may have a very high pictorial mind without being able to relate a story properly. But the art of highly-wrought narrative is too various and complicated to be traced to any single power of the mind at all pretending to be an ultimate power. The mere sense of moving

spectacle is a mode of excitement of the muscles of the eye, to which some minds may be more susceptible than others; and the consequences of a difference in this respect may extend beyond actual movements to the ideal movements raised in us by the narrative of battles, adventures, and revolutions. Still, it would be somewhat hazardous to bring forward this peculiarity as an explanation of differences of literary genius, or even of men's distinctive tastes and pursuits.

31. *Time*.—‘The power of conceiving time, and of remembering circumstances connected by no link but the relation in which they stand to each other in chronology, and also the power of observing time in performing music, is very different in different individuals. The special faculty seems to be the power of judging time, and of intervals in general. By giving the perception of measured cadence, it appears to be one source of pleasure in dancing. It is essential to music and versification.’

I am at a loss to understand the connexion between the power of accurately estimating short intervals of time, as the beats in music, and the memory for chronology and history. A good ear for time, in the musician's sense, is an undoubted natural distinction attaching to some persons, and very much wanting in others. The power is probably the same as that possessed, or acquired, by an astronomical observer, when he divides a second in his ear into ten parts, and assigns the instant of a transit as so many tenths of a second. Both the perception of equal and measured intervals, and the enjoyment derived from realizing these in music and dancing, may be admitted to spring from a common endowment; although, as remarked already, the cultivation of it can take one direction more exclusively, and tend rather to perception than to pleasure, or the contrary; but it may be questioned whether Versification has much to do with this peculiar sensibility. It does not

seem essential, either to the composition or the enjoyment of verse, that we should have a very nice appreciation of intervals of time.

In all probability we must resolve the perception of time into the perception of Movement, in other words, into a Muscular Discrimination. If we were judging of time, as we are very ready to do, by the interval moved over by some body in uniform motion, as the sun in the heavens, the shadow on the dial, or the hands of a watch, and if there were no figures to count the interval, our judgment would be the same as our judgment of space by the eye. When we have no such outward help, we fall back upon some movements of our own, and form an estimate of our muscular expenditure in some one or other of the moving members. Even if we seem to be perfectly still, we are still putting forth effort, and measuring the degree of it; the stillness is itself forced, and the amount of the force represents to us the continuance, that is, duration of the posture. In any way it would appear that the judgment, in the last analysis, is a judgment of muscular exertion, or belongs to what is sometimes called the muscular sense. If so, the perception of time would be merely one ramification of this wide-spreading sensibility, which embraces many of the other faculties signalized by phrenology; more especially Weight and Form, including Size. Cultivation, and other circumstances, would determine which of these various directions the original gift of a delicate muscular sensitiveness would practically take.

32. *Tune*.—The musical faculty is innate, beyond all controversy. It has not to do with the sense of hearing as a whole, but with one peculiar property of that sense, namely, the property of appreciating the pitch of a sound, which we know to depend upon the number of vibrations per second of the sounding body. One may have a good ear for every other peculiarity of sound, and a good per-

ception of time in music, and fail in the discrimination of pitch, and so failing want the first essential of musical taste and execution. Phrenology has very naturally laid hold of this faculty, and has, with confidence, assigned its local habitation. Musicians are found to agree in an enlargement of the lateral parts of the forehead. The analysis of the musical faculty has been made with great care, and we believe with success, by the leading phrenologists. They have properly confined the present organ to the distinct and independent property of appreciating *pitch*, without which no other combination of qualities would give the appreciation of melody and harmony; and they indicate the concurring or auxiliary faculties requisite in a musician. Of these, the first in importance is Time. A *performer* must, of course have, in addition, the mechanical aptitudes suited to the instrument that he plays upon.

No objection can be taken to the tracing out of a cerebral conformation agreeing with this peculiar sensibility. At the same time there are other important attributes of the sense of hearing that might show an equal claim to consideration. The ear for *articulate* melody and emphasis, gratified by a fine elocution, is quite different from a musical ear, and is equally the gift of nature. The ear for *versification* is an offshoot of this, and not of tune, as Combe supposes. Indeed the delicate appreciation of the modes of articulate speech, as shown not merely in the sense of cadence and accent, but in the nice perception of the sounds of the letters themselves, is an endowment quite equal in compass to the taste for music; and there would be no less propriety in looking out for a special development in the heads of great actors and elocutionists, than in assigning an organ of tune.

33. *Language*.—This organ is remarkable as having first suggested phrenology to Gall.

‘The scholars with whom Dr. Gall had the greatest dif-

faculty in competing, were those who learned by heart with great facility; and such individuals frequently gained from him by their repetitions the places which he had obtained by the merit of his original compositions.

‘Some years afterwards, having changed his place of residence, he still met individuals endowed with an equally great talent of learning to repeat. He then observed that his schoolfellows, so gifted, possessed prominent eyes, and recollected that his rivals in the first school had been distinguished by the same peculiarity. When he entered the University he directed his attention, from the first, to the students whose eyes were of this description, and found that they all excelled in getting rapidly by heart, and giving correct recitations, although many of them were by no means distinguished in point of general talent. This observation was recognised also by the other students in the classes; and although the connexion betwixt talent and external sign was not at this time established upon such complete evidence as is requisite for a philosophical conclusion, Dr. Gall could not believe that the coincidence of the two circumstances was entirely accidental. From this period therefore he suspected that they stood in an important relation to each other. After much reflection, he conceived, that if memory for words was indicated by an external sign, the same might be the case with the other intellectual powers; and, thereafter, all individuals distinguished by any remarkable faculty became the objects of his attention.’

The intellectual power expressed by such phrases as ‘command of language,’ ‘the faculty of language,’ ‘verbal memory,’ &c., is by no means a simple or an ultimate faculty. Gall’s original observations, now quoted, point to one distinct mode of the gift of words—the learning by heart passages and verbal exercises. This is perhaps the most characteristic and unmistakable form of the faculty

of language. Verbal scholarship—as shown in acquiring the vocabulary of a language, in committing to memory from books or audible discourse, in easily remembering the names of persons or things that have been once known, in an abundant command of vocables in composition, in erudite acquirements generally—is a well-marked peculiarity for which some minds are distinguished and others not. Great linguists must as a matter of course have a facility of remembering words. Now, whatever be the ultimate analysis of this power, whether it reposes more exclusively upon the Ear, the Eye, or the Voice,—which all three participate in keeping hold of words once learnt,—it is a power that we need not confound with anything else, and may locate, if we are able, in some separate portion of the head. But there are other things quite different from this that are not unfrequently described under the same title; for example, great vocal readiness, or *fluency*, is not the same as a good memory for words. A man may know many languages and the matter of many books, and have the greatest difficulty in delivering himself orally, the chance being that he will have plenty of words at command when he sets himself to compose. A fluent delivery doubtless depends upon the organization of the cerebral centres of the voice—a part of the brain of no small importance in many ways besides this, for out of it must spring both elocution and vocal music. But again; great originality in expression—the gift of all our greatest poets and literary geniuses, Shakspeare being *facile princeps*—is apt to be called a faculty of language; yet so far from this being a mode of verbal scholarship, the two frequently stand in marked contrast to each other. To learn the existing uses of a great number of words, native and foreign, is totally different from the intellectual stretch that transfers them to new uses, and works them up into original and effective combinations. One may have the one power great, and

the other only in a moderate degree. Phrenology has not adverted to this distinction, nor endeavoured to give any account of verbal creativeness as distinct from verbal memory.

It would appear, then, that by defining language as the power of learning vocables and verbal scholarship, and excluding oral delivery or oratory on the one hand, and a genius for originality of style on the other, we may have a distinct and circumscribed power of the mind, and may very fairly look out for a coincidence between it and a specific cerebral development, such as that assigned by Gall.

22. *Individuality*.—Recurring now to the faculty placed first in the list of the intellectual faculties, but which we postponed to the last of the perceptive group, we shall first give a passage from Mr. Samuel Bailey on the organ in question.

‘Its function is very comprehensive; it seems to be simply observation, but is described phrenologically to be knowing things as mere existences,’ the precise meaning of which I leave to your sagacity to discover. Such a wide definition presents a fine field to men who are not bound down to evidence, and they accordingly take the opportunity of freely roaming over it.

‘The faculty of individuality (say the phrenologists) renders us observant of objects which exist; gives the notion of substance; forms the class of ideas represented by substantive nouns when used without an adjective; gives the desire accompanied with the ability to know objects as mere existences, without regard to their modes of action; it prompts to observation; it is a great element in genius for natural history; it assists imitation in promoting mimicry; it enables the artist to give body and substance to the conceptions of his other faculties; it gives the tendency to personify notions and phenomena, or to ascribe existence to mere abstractions of the mind, such as

ignorance, folly, or wisdom ; and it does many other things. Such is the account, abridged but not misrepresented, which is given by Mr. Combe.

‘Now you must recollect that the phrenologist here virtually makes the astounding assertion that physical movements take place in the organ of individuality corresponding to all these diversified mental incidents. Conceive the amount of evidence, the separate chains of fact required for the scientific establishment of such a position ; and then turn to the narrow ground on which the whole is apparently made to rest, viz. the alleged fact that persons who have the part of the cranium referred to largely developed are remarkable for large powers of observation, or (to keep to phrenological language) for great aptness at “knowing things as mere existences”—in itself, by the way, a sort of knowledge which I for one have never been able to attain or even conceive.

‘I should like to see this evidence—or, if I have understated it, any other which can be adduced, the stronger the better—brought to bear in support of some of the preceding assertions, especially the positions, laid down with such remarkable punctiliousness, that individuality *forms the class of ideas represented by substantive nouns when used without an adjective*, and that it *assists imitation in promoting mimicry*.’—*Letters*, vol. ii. p. 230.

There is a real meaning at the bottom of what phrenologists intend to designate in this instance ; but a meaning not at all compatible with a specific and distinct organ. It means the observation of particulars, of details, or of individuals, as opposed to the tendency to generalize and classify. In fact, it is rather the sum total of the Observing faculties, contrasted with the Reflecting, than any single manifestation of observing power. In the individualizing process, we look at the collective properties of the object,—its form, size, colour, if an object of pure sight ; its sound,

if it appeals to the hearing; its taste, odour, and so forth. But in so doing, we do not bring a new faculty into play, but only the various senses and the perceptive powers grounded on them. To have a complete individual knowledge of a marine engine, we must have all the sensible aspects of it as it appears to our sight and touch. This is opposed to the *generalized* view of it, in which we compare it with other engines, and from a class type or abstract idea, dropping from the view what is special to each member, and retaining only what is common to all. But if a person possesses in large measure the other phrenological organs that we have now been reviewing, and have only a small modicum of the tendency, whatever may be the origin we assign to it, of classifying, generalizing, or forming abstract ideas and types, such person cannot but individualize the objects that come under his notice. To have a strong retentiveness for colour is itself a powerful cause of keeping objects in the mind in their individual fulness, instead of merging them in their classes. If one is very much impressed with the rich colouring of the peony, one will be by no means ready to exchange the notion of a bed of peonies for the technicalities that circumscribe the *natural order* that this flower belongs to. So in music, a very great mental attraction for some fine melody would be an obstacle to that other impulse of the mind that would look upon the melody simply as one of a class, and take a pleasure in determining what was the common feature, or defining mark of the class. If any of the senses are very strongly engaged with an object, there is a reluctance to relinquish the individuality of that object for an abstract idea. We would rather conceive our own favourite river in all its peculiarities, than drop these peculiarities, in order that we may conceive a river in general, or form abstract ideas of transparency, gravitation, mechanical impetus, winding curves, &c. To make us stick by the individual

is the triumph of the senses. It is only when sensation is less highly developed, and another power stands forth into prominence, that we pass into the generalizing phase of mental activity. This other power has been characterized in the phrenological scheme under the designation of Causality. Individuality and Causality form a genuine antithesis: the one exactly explains the other; but the antithesis is between the sum of the observing tendencies and the sum of the reflecting, or more properly, the generalizing tendencies. We conceive, therefore, that the organ of Individuality is a redundancy in the scheme of phrenology: all the effects attributed to it would arise out of the other observing organs; and if there be a great prominence over the nose in Sheridan, Walter Scott, Mathews the comedian, and in men given to the minute observation of individuals and details, whether for purposes of experimental science, or for purposes of fine art, or in the constructions of common industry, our proper plan would be to allocate the part in question to some department of observation by the senses. There would be a very general concurrence in assigning the lower region of the forehead to the observing faculties, while the upper region more commonly betokens the reflecting and generalizing turn of mind. The appearances in well marked cases of the respective modes of intellect correspond to this view, probably as often as correspondence is ever found between any portion of the head and definite faculties or propensities; but the specification of the separate faculties as given by phrenologists is liable to various objections, the badness of the analysis being not the least. And yet there exists here a clue to a good analysis, such as occurs nowhere else. We have merely to follow out the different Senses separately, and ascertain the qualities of body perceived by each; the only subtlety in the case being the muscular perceptions mixed up with sight and touch, which were not well disen-

tangled from pure sensation at the time when the phrenological division was sketched out.*

The faculties of REFLECTION, or Reason, in the phrenological scheme, are two—Comparison and Causality. It will be found, however, as above remarked, that the last of the two is really the antithesis of the observing faculties.

34. *Comparison*.—This function of the mind has caused great trouble to phrenologists. 'The faculty gives the

* Combe is aware of the objection that may be urged against this organ on the score that its function seems already contained in the other observing organs. 'The question naturally occurs, if the minor knowing powers apprehend *all* the separate qualities of external objects, what purposes do Individuality and Eventuality serve in the animal economy? The function of Individuality is to form a single intellectual conception out of the different items of information communicated by the other knowing faculties, which take cognizance of the properties of external objects. In perceiving a tree, the object apprehended by the mind is not colour, form, and size, as separate qualities: but a *single thing or being* named a tree.' In a word, while the other powers of observation give the properties whose concurrence makes the individual, another power is required to bring about the concurrence. We see an orange, touch it, taste it, smell it, and our idea involves all these qualities; but if we were born without an organ of individuality, the yellow colour might part company with the soft touch, or the sweet taste, and we might perhaps make up the qualities into unreal combinations, transferring the yellow to an ink-bottle, and the sweetness to a cinder. In truth, we can hardly conceive of a sane intellect doing anything else than retaining the perceptions exactly in the combination presented in nature; and it seems impossible that we should obtain evidence to prove that a mind might be sensitive to the various qualities of concrete objects, and yet be unable to retain the objects themselves as made up by the concurrence of those qualities. There is a power of association by 'contiguity,' recognised by psychologists since the time of Aristotle, by which the parts of complex wholes are connected in the mind as in nature, from which arises much that is called 'memory' in common language. If this be meant by individuality, the faculty is an intelligible one; only the present application of it is peculiarly subtle, and even disputable. If two sensations always concur simultaneously, as the shape and colour of an orange, it seems inevitable that they should be associated in the mind; the thing to be explained would be the process whereby we *disassociate* those compounds, as we have afterwards to do.

power of perceiving resemblances and analogies. Tune may compare different notes; colouring contrast different shades; but comparison may compare a tint and a note, a form and a colour, which the other faculties by themselves could not accomplish. "The great aim of this faculty," says Dr. Spurzheim, "seems to be to form abstract ideas, generalizations, and to establish harmony among the operations of the other faculties. Colouring compares colours with each other, and feels their harmony, but comparison adapts the colours to the object which is represented; it will reject lively colours to present a gloomy scene. The laws of music are particular, and tune compares tunes; but comparison chooses the music according to the situations where it is executed, &c."

There is here a most evident jumble, which some of the acutest of the phrenologists have felt, and attempted to clear up. The power of originating metaphors, similes, and analogies, is something tolerably distinct, which we can discuss and analyse. It is that portion of literary genius, already alluded to, which does not properly fall under language, in the sense of verbal acquisitions and fluency. We see it exemplified in our greatest poets, and in the highly illustrative prose of Bacon, Jeremy Taylor, Edmund Burke, Macaulay, and many others. Wherever it occurs, we give it the designation of 'genius,' of which it is one mode or variety. But when we pass from this to the formation of abstract ideas, the scene is shifted; we are no longer even in a kindred region. Those illustrative similes are generally subservient to pictorial and highly concrete composition; they ally themselves with literary art, and not with science, except very incidentally. Not content, however, with confusing the literary with the scientific, Spurzheim goes on to another function, 'the establishing of harmony among the other faculties.' It is possible, perhaps, to give some definite meaning to this operation, but pro-

bably we should find scarce anything that it has in common with the foregoing. To make matters still worse, we have a mere æsthetic sensibility superadded, the harmonizing of different effects in fine art,—music to the occasion or the feelings of the situation, and so forth.

The confusion here is irremediable; and in hardly any way is it possible to make out a basis for a distinct organ. If we were to fix upon the power of originating similes and comparisons of all sorts, this belongs only to a few persons in a generation, the bulk of mankind being as good as destitute of the power; and when the heads of those persons are examined, there is no such difference of cerebral development observable, as corresponds to their superiority over the general mass of human beings. Mr. Hewett Watson gets out of the difficulty by striking out a new property of objects, in addition to the properties recognised by the observing faculties—size, form, colour, individuality, &c.; he describes their ethical state or *condition* as a separate fact respecting them. If we say ‘the black man rides,’ we appeal to colour (black), individuality (man), eventuality (rides); but if we add the epithet ‘miserable,’ or ‘joyous,’ we describe condition; and the perception of this he assigns to the present organ. But he has not, so far as appears, supplied even the usual modicum of phrenological evidence to show that people with a fulness in the middle of the upper part of the forehead are prone to take notice of the condition of men and things in his sense. Besides, this sense of condition might easily be made to fall under some other sensibilities, such as benevolence, sympathy, conscientiousness, or perhaps some poetical feeling, and would by no means make good its title to be reckoned an ultimate fact of our nature.

If phrenologists had not repudiated with vehemence the psychological doctrine of the Association of Ideas, they might have been kept within intelligible limits on this

subject. Having once fixed upon the tendency to draw comparisons between different things, as worthy of being enrolled among the intellectual powers, they would have found that function already recognised and illustrated at length under the designation of the associating principle of Similarity, or the power whereby anything present to the mind tends to bring forward other things that resemble it; as when we look at a new scene and are struck by the resemblance between it and some other scene that we were previously familiar with. This is one of the fundamental powers of the human intellect, unequally manifested in different minds. In the explanation of original genius, we have to make a more frequent reference to this peculiarity than to any other single function of the mind. Some intellects recognise resemblance through great accompanying dissimilarity, and bring together things that lay wide apart from each other. Such was Franklin's identification of electricity and lightning. Other minds are very slow to perceive a likeness that is not obvious, and hence the ideas that rise up in them are mostly of the commonplace order. (See *Senses and Intellect*, book ii. chap. 2.) But although we thus consider the law of Similarity to be one of the best established points in the ultimate analysis of our intelligence, we should despair of referring it to a local centre, such as might not unreasonably give a cerebral basis to colour, tune, or any other quality of mere sensation. Moreover, it is not an easy task to take the measure of this principle of our nature, unless in its highest and rarest manifestations. Even granting that there is a power of strong attraction of similars on the whole, there will still be a more vigorous manifestation of it in the class of things that are most vividly perceived and retained by the observing faculties; a musician will recall melodies; a botanist, plants; an artist pictures, more readily than other things that seem equally within reach, so far as likeness

is concerned. Not to protract the criticism, I may say, in a word, that while the illustration of this power of like recalling like is one of the most interesting themes of the psychologist, and most important in the explanation of intellectual differences among human beings, I cannot regard it as at all a good subject for phrenology.

35. *Causality*.—‘It has long been a matter of general observation, that men possessing a profound and comprehensive intellect—such as Socrates, Bacon, and Galileo—have the upper part of the forehead greatly developed.’ Gall remarked this development in the most zealous disciples of Kant, and was no less struck with it in the mask of the philosopher himself. He gave the quality thus associated with an ample forehead the name of the ‘*meta-physical*’ mind; but Spurzheim changed this to the ill-chosen term, ‘*Causality*,’ thus adding one more item to the already existing confusion of ideas involved in the designation ‘*Cause*.’ Combe, who in other respects illustrates well what is really meant by this organ, is so far led away by the name as to include in it the tendency to embrace a certain theory of causation, the opposite of that of Brown, who maintained cause to be only invariable sequence. He also attributes to a good development of the organ the recognition of a First Cause, and implies of course that those in whom it is but moderately full, nineteen-twentieths of the human race, have a comparatively feeble hold of that doctrine; not advertent to the circumstance that our chief atheistic philosopher is one of his examples of large causality.

As formerly remarked, the true meaning of Causality comes out in the contrast with Individuality. It is the scientific or generalized knowledge of things, as distinct from the unscientific (although possibly sound and correct) knowledge obtained by actual observation of individual facts. The sailor knows how to steer a ship from expe-

rience of the act ; the mechanical philosopher who never had a helm in his hand could tell from general principles which way to move it. It is the difference between practical knowledge and theoretical knowledge ; the knowledge of the *fact*, and the knowledge of the *reason*. The generalized views that enable us to act in cases where we have never had specific experience, are the very essence of science ; and the faculty now under discussion might be termed the *scientific* faculty, the aptitude for scientific acquisitions. The intellectual peculiarity that enables a person to excel in some of the abstract sciences—it may be mathematics, physics, chemistry, physiology, mental philosophy, logic, metaphysics, political economy, &c.—is something distinct from the grasp of mind that enables one to know details with the minuteness of a practical workman, or to take a painter's or a poet's view of nature. In every department of life, the contrast of the practical man and the theoriser may be found. In law, the accurate acquaintance with individual cases distinguishes some lawyers, who are of course the best advisers of litigants coming before the courts ; the power of rising to general principles belongs to others, who are thereby fitted to reduce the chaos of accumulating statutes and decisions to a consistent and comprehensive code. Every workman must know his individual subject, and he will do this all the better that he possesses a good development of the observing organs, whether described in phrenological language, or in any other ; if, in addition, he is acquainted with the scientific theories of his subject, he has a chance to take a higher flight of originality, and display resources inaccessible to the workman whose *forte* is individuality alone. From the limitation usually imposed upon our weak nature, a man excelling in one of the aptitudes, is for the most part mediocre or deficient in the other. It is seldom that we have an Aristotle, who on one side was the

inventor of the highest subtleties of logic and metaphysics, and on the other a plodding and pains-taking natural historian; or a Newton, profound in mathematics, and yet a skilled adept in experimental manipulation. More commonly a great theoriser is unfit for practice, and a good practical man deficient in general views or abstract theories.

Phrenologists consider that they have a more than ordinary amount of concurring testimony to their location of this organ in the upper and outer corners of the forehead. Nor can we refuse them the benefit of many striking coincidences that favour this view. Often, however, we find ourselves met by equally marked cases of want of coincidence between a fulness in the region in question and the aptitude for general or abstract speculation. And not only so, but the preliminary question as to whether we have here an *ultimate*, as well as a distinct, power of the mind is anything but easy of solution. There can be very little doubt that the predominance of the scientific, generalizing, or abstract turn of mind is as much owing to the smallness of the observing tendencies, as to the fulness of the positive endowment involved in the case. A strong attraction for colour and form, and for the artistic harmonies and pleasing attributes of the visible world, repels the analytic and abstracting process that is necessary for the scientific study of nature, in diagrams and algebraic symbols. Indeed, an overweening passion for effects of Colour alone would make it very hard, if not almost impossible, for a man to spend his life in logical forms or metaphysical analysis. An intense disposition for theorising, on the other hand, is apt to disqualify a man for practical operations; a military commander, a statesman, or an engineer, should be very much alive to the minute detail of their special subject. The theoretical faculty, however, is very valuable in the *teachers* of the men that

are to carry on the actual operations of life. Both the teacher and the man of original research should be capable of rising to general views, so as to impart a wider compass of knowledge and resource to those that are to conduct the business of life, than they can derive from the actual routine. An engineer should learn theoretical mechanics and chemistry in the schools, to accompany the practical familiarity with stone, and lime, and earth, and water, that comes with his apprenticeship to the vocation itself. Combe considers *Individuality*, *Eventuality*, and *Concentrativeness* to be the indispensable qualities of a successful teacher. In this remark he has in view the power of *interesting* the minds of pupils. But granting this to be so for children, the teacher that is to impart the higher instruction for entering on the liberal professions, ought not to be the slave of detail, as he would be on the supposition that individuality is strong; tuition on this principle is utterly barren and out of place. The *detail* is most effectually and sufficiently acquired in actual practice, in the camp, the building yard, the solicitor's office, the bench, or the bureau; the imparting of large and comprehensive views to extend and improve the operations of real business, is what is alone left to the public teacher, and if he fails in this, he is good for little. Even in medicine, the university professor should be a man of general views, and not of cases. The spirit of detail that must rule the practitioner is fatal to him that would advance the science.

I have made these observations with reference to causality, because of the prevailing tendency to look solely to the repulsive side of scientific procedure, and of the respect paid to those numerous attempts to make science easy and popular, by 'eviscerating' it of its vital part, the forms and symbols that confer the generality and comprehensiveness necessary to its success.

CHAPTER VI.

THE OMISSIONS OF PHRENOLOGY.

I PROCEED now to advert to the omissions in the phrenological scheme of character. Attention has been already drawn to cases of redundancy, or of duplicate organs for substantially the same mental fact. Something of this kind occurs in the three organs of Philoprogenitiveness, Adhesiveness, and Benevolence ; in Concentrativeness and Firmness ; in Combativeness and Destructiveness. Still more decided is the duplication in Constructiveness and Weight ; and when Colour and Form are explained in the full compass of their meaning, they take in Locality and Size, and great part of Individuality. In fact, the *ocular* sensibility, optical and muscular, encloses at least six or seven Phrenological organs.

Beginning with the department of Activity, I might dwell upon the inadequacy of the account given of the muscular feelings generally ; they being nowhere involved except in Constructiveness and Weight. But the great omission is the *vocal powers*. And here I allude to the organ of voice, not as taken by itself but, as moved by the internal central energy, to which it owes nicety of graduation in executing either speech or music, and educability both in one and the other. When, after laborious trials and experiments, suitable positions and movements of the vocal cords have been hit upon, it is of importance that these should be retained or remembered for after occasions, and it is but reasonable to ascribe the retentiveness in this respect, to a high development of those centres or parts of

the brain that more immediately control the vocal movements. If so, such a development ought to be sought for in the conformation of the head. It may be said that Language includes this vocal aptitude ; but we have seen that Language involves two other powers which play a part of at least equal importance, namely, the ear for articulation, and the eye for alphabetic forms. And this is not all. The gift of tongues may be possessed to a high degree in the absence of a good oral delivery, or a tolerable fluency of address. Many a man both knows languages, and shows a profuse command of phraseology in wielding the pen, without being equal to the most ordinary effort of extempore address. Other men, not possessed of the erudition of vocabularies, have yet the power of vocal fluency to a remarkable extent, a power that we must locate in the endowments and associations of the centres of the vocal organ. A great gift of elocution must likewise be referred in considerable measure to the same part of our constitution. But vocal power is scarcely recognised in any shape by Phrenology. The talent of the actor, taken as a whole, is described under Imitation, but the special facility of vocalization, entering into many other cases besides acting, must be supposed to have a distinct foundation and a separate local habitation, if we can say so of any aptitude whatsoever. Which parts of the brain are paralysed or weak when the utterance is stammering, and powerful when that is remarkably easy, flexible, and copious? A man may be fluent and telling in address with few words, and fewer ideas ; or deliver himself with incoherency and awkwardness, although inwardly abounding in both ; but no recognition of this difference appears in the Phrenological chart.

To pass to the department of Sensation. Whatever may be the cause of the defect, the enumeration of the various modes of our sensibility to the objects of the Senses is sin-

gularly incomplete. There is no place for the sense of Taste, and yet individuals are to be found above and below average in this respect. A distinguished living authoress was born devoid of taste, the deficiency ascribable in all likelihood to the brain. Smell is equally omitted, a sense likewise wanting in the same authoress. But in illustrating the general question of the relation of mental power to size of organs, much stress has been laid by Phrenologists on the extent of the smelling surface, and the bulk of the olfactory nerve in the dog as compared with men, and in the savage as compared with the civilized human being; and yet it has never been proposed to seek a corresponding enlargement of a locality in the brain, the supposed centre of smell. True, if the olfactory bulb be the sole centre, whose varying magnitude determines the acuteness of the sense, an extreme indication of its size would be wanting in the human subject; and this may be a sufficient difficulty in practice, but still there is something gained by aiming at a complete enumeration, if only theoretical for the present.

The purely skin sensations of Touch are difficult to separate from the feelings of movement, pressure, and force that accompany them. Weber's experiments first gave a clue to the sensibility proper to the skin. There can be little doubt that here, as everywhere else, individuals are unequally endowed; consequently the measure of tactual delicacy is an element of character. The qualities indicated by the duplicate organs of Constructiveness and Weight are more muscular than tactual. The nearest approach to a pure example of tactual discrimination is perhaps the judging of cloth by the hand. A fine sense of surface, as rough or smooth, soft or hard, &c., may be in part in the muscles, but is also in great part in the skin, and in the nerves and centres of pure touch. A high order of manual *execution* essentially involves the sense of move-

ment and force, but the discrimination of surfaces is true tact. This sensibility is not allowed its full play, owing to the superior efficacy of sight in appreciating the very qualities that the hand seems formed to perceive; the blind alone know the full powers of this instrument. Phrenology, however, has not included the faculty among the perceptive powers.

As regards the sense of Hearing, the only power adverted to is discrimination of pitch, under Tune. But there are other properties of sounds besides this, and great inequalities in the perception of those properties, when we compare different minds. The acute sense of hearing generally would imply a delicate discrimination of differences of quality of sounds, as in the ring of a sovereign, and a corresponding power of distinguishing objects by their sound, and persons by their voices. In the aptitude for acquiring language by the ear, there must be a nice sensibility to the articulations of the human voice, implying, as in other cases, the feeling of minute shades of variety and a good recollection of the impressions made. We find the greatest contrasts among people in this point, and it cannot be less worthy of being enrolled in the classification of elements of character, than the susceptibility to the musical scale. One has no right to be satisfied with the huddling up of this property in a general aggregate faculty of Language.

Another property of the ear is the sense of accent and cadence, which governs the cultivated intonation of the human voice, both in oratory and in good conversation. The varying tones and emphasis of the voice have something of the same effect upon the listener, as movements have upon a spectator; and both the one and the other can be adjusted to graceful and impressive modes. The enjoyment thus derived is not felt by all alike, and they that feel it most, naturally desire to reproduce it. In a

musical performance, effects appealing to this sense are mixed up with the proper harmony and melody of the sounds.

The sense of Sight has received the fullest justice at the hands of Phrenology, and is the only one that so much can be said of. We may not be satisfied with the manner of enumeration, but we cannot point out any important omission.

The Emotions or Sentiments have been detailed with tolerable completeness; still we can note a few things as wanting. The peculiar situation of watching the approach to some goal of pursuit, is different both from the love of exercise and the possession of the thing aimed at. In action it is the interest of Pursuit, in narrative it is the engrossment of a Plot. Entering largely into the operations carried on by human beings, we originate fictitious modes of exciting it, by sports, games, and romantic story. Human nature is universally susceptible to the charm of a well-conducted plot, but in some the pleasure rises to passion, in others the excitement extends but a little way above indifference :—

‘untired

The virgin follows, with enchanted step,
The mazes of some wild and wondrous tale
From morn to eve.’

The interest of Plot might have been introduced under the organ of Eventuality; but this has not been done, and even then there would have been an objection to placing it so. A new element is added to the pleasures of mere movement, when we set up an end to be attained. It is one thing to see a horse scampering over a common, and another to be the spectator of a race. Either this emotion is an ultimate phase of our mental constitution, or it grows out of some wider phase not recognised in the scheme of Phrenology. The above lines of Akenside are quoted by Combe as illustrating the passion for novelty, as a mode of Wonder;

but it may be doubted how far the charm of story and plot can be referred to this source. It is not the relation of marvels that constitutes the effect, it is the progressive evolution of something that is kept uncertain till the close. Wonder and plot are made to work together in many fictitious tales, but they still seem to be distinguishable effects. And even supposing the one to be merely a mode of the other, Combe has not specified the present feeling in his very full detail of the manifestations of Wonder.

Another omission of some importance is the power of Sympathy, a great fact of human nature, and a point in which individuals differ widely. Some men have a remarkable aptitude and disposition to enter into the situation and states of mind of those about them, while others are engrossed exclusively with what concerns only themselves. Sympathy is confounded in all languages with tender feeling, but is nevertheless a distinct phenomenon. Love undoubtedly inclines us to sympathize with another; but we may have sympathy for many persons that we do not love; as in the life-long endeavours of Howard to ameliorate the fate of the jail population. The primary element of Benevolence, which is tender feeling, does not include the sympathetic process as now understood; on the contrary, it is that process which gives to benevolence its expansion and compass.

Sympathy, in its strictest sense, as the power of realizing to ourselves the pains, pleasures, and emotions that do not concern ourselves at the moment, but are manifested in our presence by some other person, enters into Conscience as defined by Combe; but is not co-extensive therewith. It is a more fundamental fact than Conscience; and there is a broad distinction of character between those that have it much, and those that are deficient in it. The one man carries about with him the lively sense of the wants, pains and gratifications of a number of fellow beings; the other's

activity is guided almost entirely by what he can feel in his own person ; his own hunger, fatigue, reputation, &c. The degree and extent of our sympathies are a prominent and material fact of our character, but Phrenology has made no direct provision for exhibiting this fact in its proper light. Neither Benevolence nor Conscience fairly includes it ; and the power of Imitation, which bears a certain kindred to the power of sympathy, is handled merely as regards the talent for the stage. It is by virtue of a very special endowment that a man can divest himself for the time of his own individuality, and take on the mental attitude of another man, with its attendant pleasures or miseries, hopes or precautions. Not only the tendency to give succour in distress, and congratulation in good fortune, but also the power of knowing men's characters and ways with a view to guiding, persuading, instructing, or controlling them, flows out of this aptitude. More than one ultimate constituent may be at the foundation, but whether we analyse it fully or not, we are not justified in overlooking a phenomenon, of which enlarged benevolence and a high moral sense are not the sole ramifications.

I would farther suggest that Phrenology has but imperfectly recognised the sentiment of the Love of Truth, in that highest form of a fixed resolution to affirm nothing, without first taking pains to ascertain the sufficiency of the evidence for the thing affirmed. A man, ordinarily conscientious, would not utter what he knew to be false, but he might have no disposition to scrutinize all statements that came to his hand before repeating, or acting upon them. Pains-taking research in science, in history, in the matter of public or private business, in the verifying of received opinions,—an uncommon attribute of the human mind generally,—is found occasionally very strong in individuals. Yet it is by no means a natural or usual accompaniment of the devotion to scientific pursuits. Even

among the votaries of science, we may observe the greatest difference between one man and another in the scrupulosity of their requirements in the matter of evidence. The greatest philosophic reputations have been built upon immense theories raised upon no basis of proof. Plato is an example ; his theories merit little attention as being the statement of true or verified opinions. The regard or disregard of the process of sifting evidence in facts, theories, hypotheses, and opinions ; on the one hand, the determination to follow out truth to whatever consequences it may lead, and on the other, the easy acquiescence in anything that is commonly affirmed or appears on the surface,—divide men into two different classes, a small minority, and an overwhelming majority, on a point of fundamental importance, and there ought to be something to mark this distinction, if Phrenology can make good any of its positions. Combe alludes to the feeling in expounding Conscientiousness, of which it may not improperly be termed a branch, as belonging to the class of high moral duties. This may answer in an Ethical classification ; but not in a system that pretends to the ultimate analysis of character. The regard to the rights and fair expectations of other men, in reciprocal dealings, is the usual form of the moral sentiment, and is a case of the operation of sympathy, as above hinted at. The determination after truth in the abstract, the revulsion at inconsistent statements, and the devotion of time and labour to establish the smallest matter-of-fact upon indefeasible evidence, may be also a moral attribute, but it cannot easily be traced to the same root in the mental constitution. The one species of conscience is satisfied if every actual person obtains their due, the other demands that no affirmation be made, and no opinion received, without the utmost rigour of authentication. Fellow-feeling may amount to the first, but not to the second. The taking a thing upon trust, and the admis-

sion of whatever is recommended by some strong sentiment, are what the genuinely truthful mind abhors; and for the explanation of this, we must resort to some other foundation of character than the commonplace conscience. The two sometimes go together, but oftener not. Combe found conscientiousness large in persons that controverted his opinions in a spirit of fairness, but he probably might have found the same development without the same high-toned conduct,—in other words, a conscientious character, good for all the purposes of integrity in common dealings, but not reaching to the pure love of truth. If Phrenology were as well founded as Combe believed it to be, persons of large conscientiousness ought not merely to have shown themselves fair and moderate in their antagonism, they ought to have become converts to a system so highly recommended by the extent of its facts and the cogency of its arguments. Many men will represent an opponent's views fairly enough, and yet be as far off from conviction, and as deeply wedded to preconceived opinions, as the rough-shod and unscrupulous debater. Courteousness and civility are not the love of truth.

In the sensibility connected with Fine Art, or what is called æsthetic pleasure, whether realized in nature or expressly provided for by Art, Phrenology will be found defective. Coming from a time when the sentiment called the Beautiful was generally considered as one and indivisible, the allocations made under the Phrenological scheme followed the prevailing views. A single organ, Ideality, comprehended all that was peculiar to Art, assisted indeed by many other organs, as Form, Colour, Tune for music, Imitation for acting, and so forth. But in this plan, many distinguishable sensibilities of our nature are either not mentioned at all, or are lumped together in defiance of the obligation binding upon phrenologists, to analyse character into its fundamental elements. The

feeling arising from Proportion, and Harmonious Combination, entering into all works of high Art,—into a Building, a Painting, or a Poem,—is brought in nowhere, except crudely in the heterogeneous aggregate given under Comparison ; and there is no adequate attempt to grapple with the nice question as to whether there is a *general* sense of harmony, or whether the sense is special for each of the Fine Arts. It is presumed that Tune gives the sense of musical concord, Colour the feeling of well-assorted tints in a painting, Form the susceptibility to fine sculpture and the beauties of the human figure ; but we are not taught what constitutes the pleasure of a fine poem, where musical numbers and touching images co-operate harmoniously with the poet's subject. The feeling of Symmetry, in the grouping of objects, notoriously powerful in some minds and feeble in others, occurs only under the ambiguous designation, Order. The Sublime, or the sentiment of power manifested on a great scale, may be shown to be implicated in Veneration, as being indeed a more widely generalized fact than the Religious Sentiment, but we do not find it specifically mentioned in the illustration of that organ. The lofty conceptions of Milton or Dante, the creation of gods and demigods, and the admiration of the vast in nature, would be attributed to Ideality. This vaguely defined faculty is likewise the explanation of an orator like Chalmers, whose power lay in elevated and impressive imagery and illustration. The Humorous may be supposed to be included under Wit ; but where shall we place the sentiment of the Cleanly, and the abhorrence of its opposite, so often manifested in our own country with the force of a passion ?

We would advert next to the circumstance that in Phrenology the power of *retaining impressions generally* is repudiated. The theory is, that when a special organ is large, as, for example, Form, Locality, or Number, all that

affects that organ is strongly laid hold of and retained, while the impressions made upon organs feebly developed are correspondingly feeble and transitory. It is denied that a man may have what constituted genius in Dr. Johnson's definition, large general powers; such a thing, according to Phrenology, would be possible only in a head in which all the intellectual organs were full. There is an unwillingness to recognise powers of acquisition, on the whole, as distinct from specific faculties for language, for science (Causality), for music, for colours, and so on. The usual mode of looking at the mind may be seen in the following passage of Combe. Speaking of memory, he says:—

‘Each organ enables the mind to recal the impressions which it first served to receive. Thus, the organ of Tune will recal notes formerly heard, and give the memory of music. Form will recal figures previously observed, will give the memory of persons, pictures, and crystals, and produce a talent for becoming learned in matters connected with such objects. Individuality and Eventuality will confer memory for facts, and render a person skilled in history, both natural and civil. A person in whom Causality is powerful will possess a natural memory for metaphysics. Hence there may be as many kinds of memory as there are of Knowing and Reflecting Organs; and an individual may have great memory for one class of ideas, and very little for another; GEORGE BIDDER had an almost inconceivable power of recollecting arithmetical calculations, while in the memory of history or languages he did not surpass ordinary men.’

Combe, however, follows up these observations, which represent the point of view habitual to Phrenology, with the following remarkable admission.

‘There appears to be a *quality of brain, which gives retentiveness, so that one individual retains impressions much longer than another, although their combination of*

organs be the same. It is said that Sir Walter Scott possessed this characteristic in a high degree; *but the cause of it is unknown.* This fact *does not invalidate the theory of memory* now given; because in every individual the power of retaining one kind of impression is greater than that of retaining another, and this power bears a uniform relation to the size of the organs.'

Now it is quite true that the above admission does not invalidate or refute Combe's theory of memory, but it certainly qualifies it, by adding a new consideration, or a distinct element of intellectual power, which once admitted ought to be made use of in the explanation of character. It may be that such a power cannot be localized, that it grows out of the quality of the brain; but differences of quality that give rise to important intellectual distinctions, ought to be taken into the account in judging of individuals. Phrenologists are open to the charge of narrowness of view, in practically excluding from their diagnosis of character whatever is not connected with some one of their *local* organs; although they start by making large concessions as to the effect of Temperament, or the *quality* of the nervous matter. But such a power as the one now remarked upon, whereby one man is distinguished over another, with a like conformation, in everything that he applies his mind to, making him as it were a superior being, is surely worthy of entering into the scheme of delineating character, no less than a slight difference in Tune, Ideality, or Eventuality. When we look at a number of boys sitting in the same school, or passing through the same classes at college, we cannot but be struck with the fact that some are able to acquire everything in a remarkable, although not exactly in an equal degree; there is sure to be one subject, be it language, mathematics, natural history, or metaphysics, where they are more especially adepts; still they have in comparison with others this universal ascendancy, not to be

accounted for by their Phrenological conformation. We cannot help describing such pupils in language implying general superiority of intellectual power, and must regard as defective any mode of representing character that does not permit us to use some phraseology equivalent to this. The terms in popular use provide for the expression of intellectual superiority in general; the words 'clever,' 'able,' 'gifted,' 'intelligent,' and many others, testify to the prevailing belief in this kind of endowment.

There is one other observation, of a kindred character with the foregoing, that may be made with reference to the Intellectual powers as set forth in Phrenology. In the diagnosis of character, there is no regular place allowed for stating a person's *acquisitions*. Of course acquired knowledge is not shown in the conformation of the head, but it is not for that reason to be excluded, when we are rendering a full account of all that a human being is, or is capable of. It is too often taken for granted, that if any one shows a particular propensity, sentiment, or faculty in considerable force, that the only explanation is the size of the corresponding organ: any reference to outward circumstances or education is constantly excluded. The effect of this is to render Phrenology only a *part* of the science of character, the part, namely, that takes cognizance of original or *innate* tendencies. While giving a tolerably fair account of the uncultured classes of the community, and of those whose natural tendencies are so strong as to be little affected by surrounding influences, the system must break down in its application to highly educated individuals, and to susceptible and yielding natures. However valuable it may be to possess a clue to original conformation, which must in any case count for a great deal—and often for nearly all—it is no less requisite that we should, before pronouncing finally, inquire into the history and the environment of the individual under consideration, to see how much can be ascribed to cir-

cumstances and cultivation, before we put down all the appearances to the account of nature. Nor is this such a complicated operation as might be supposed. If education has given to any one a prominent and powerful aptitude, without the concurrence of natural disposition, that education could not be furtive, fitful, or concealed. The pressure brought to bear upon a person originally defective in the feeling of the graceful, to render that a distinguishing quality of such a person, must have been incessant and intense, probably tyrannical. Either a surrounding atmosphere from infancy upwards, or an all-powerful parental sway, is essential to that amount of transformation that would make a man hard-headed with small Causality, or a lover of painting with a natural indifference to colours, forms, and natural aspects. This external pressure can never be concealed; but concurring with it is the tendency, purely of nature's giving, *to succumb to influences from without*. This is the final question to be determined phrenologically, or otherwise. Apart altogether from an aptitude for special feelings or impressions—for Wonder, Benevolence, Language, Science—there is an aptitude for taking on anything strongly represented to the mind by another person, and a counter-aptitude for resisting a suggestion *because* it is the suggestion of another and does not occur to oneself. When we ascertain the bent of the character on this point, we are prepared for putting much or little stress on the antecedents and circumstances of the past life. Sometimes the power that moulds the character is not outward formation, but self-formation. Demosthenes must have had in the end of his life a forcible, and probably even a graceful elocution; but we know that when he began his training he was singularly wanting in those essentials of an orator.

CHAPTER VII.

NATURAL, OR SPONTANEOUS ENERGY.

HAVING criticised at considerable length the only scheme of Human Character that has hitherto been elaborated in a manner proportioned to the subject, I mean now to present another scheme, which appears to me more in accordance with the present state of our knowledge of the human constitution. The basis of what I propose is the threefold division of mind into Emotion, Volition, and Intellect ; and for certain important reasons, the element of Spontaneous, or Innate Activity, characteristic of Volition or Will, will be taken first in order.

It is my conviction that there is in the mental system of men and animals a spontaneous tendency to action, independent of, and prior to, the stimulation of the feelings. (*The Emotions and the Will*, chap. i.) We move our various active members merely for the sake of moving them ; in other words, there are times when no cause can be assigned for throwing out the limbs, gesticulating, moving from place to place, but that an inward power is discharging itself, and that it would cost us an effort to resist this prompting. When refreshed by rest and nutrition, when in high health, in the prime of our days, and under any circumstances favourable to animal vigour, this internal and spontaneous force is at the maximum ; exhaustion, inanition, and feeble health, on the other hand, reduce it to zero. Every day of our life there is a certain amount of this natural overflow, which may either run to waste or be turned to account in the avocations of industry. Our various wants,

and pains, and pleasures, determine the direction to be given to it, and also by their stimulating efficacy, increase the amount. If one were disposed to walk two hours merely in order to vent the energy accumulated in the system by the night's rest and morning meal, an exciting object would easily double the expenditure. A man rises to his utmost when the fund of natural power is high, and when at the same time he is under a powerful emotion ; of such a nature is the energy of a combat, a race, an adventure for some great stake.

Now, it appears to me that we cannot make a better start in classifying and describing the elements of character, than by taking note of the degrees and varieties of this inborn energy, the manner of its display, and the practical consequences flowing from it. Manifesting itself, as it does, in a certain definite amount, before either the feelings or the intelligence come in to modify the current, we ought to endeavour to characterize it in its purity, or isolation, so far as we are able. We shall then be prepared to appreciate the compound effects that arise, when feelings and purposes come in to control it.

The physical seat of the spontaneous energy must be sought to some extent in the conformation of the muscular system. There is a quality and amount of muscular fibre disposing for great bodily effort, labour, and endurance. The mere quantity of nutrition that this tissue draws to itself produces a certain degree of muscular action or expenditure, and it may be presumed that the individual is not at ease unless this expenditure is permitted, through some form of bodily exercise. It is like appeasing the gastric juice by supplying the amount of food capable of being dissolved by it. Animals, or men, with large and energetic muscles are likely to display of their own accord, and without reference to any other motives, a great amount of muscular movement. They may apply it to the ends of

utility, or let it off in sport and athletic amusements. This sort of energy is easy to discriminate; we see it written in the stature, figure, and carriage, we can test it by the most obvious means. An English navvy, an able-bodied seaman, a porter for carrying weights, an athletic champion, are open to an easy examination.

Muscle, however, is not the chief source of the natural energy. Even in the most unmistakeable athlete, the man of giant proportions of sinew, the brain counts for something. Besides each muscle's own nourishment, a certain share of the power manifested is due to cerebral currents flowing towards the muscles, and derivable in their physical source from the nutrition supplied to the nervous substance. Now in many cases, the bodily activity of an individual may be due more to the goodness of the corresponding part of the brain, than to the goodness of the muscle. There may be a tendency to store up a large fund of central nervous force, which, when poured out into the moving members, keeps them at work much longer than would happen by high endowment of muscle and a moderate degree of nerve. The quality and quantity of the cerebral centres in immediate connexion with the various active members, wherever these be located, must be presumed to bear the principal part even in mere bodily force and endurance. When the muscles are palpably of an ordinary structure, the whole of what distinguishes a person in this respect must be attributed to nerve. But farther, it is not altogether certain that good muscle by itself will dispose a man to great and continuous efforts, without the prompting of the nerve centres. There are not wanting instances of a very indolent habit concurring with a great muscular development; the lazy class among the Irish and the Highlanders are not always deficient in physical capability. Our safest supposition is to rely principally upon the quality and quantity of the brain, for the spontaneous energy that we are endeavouring to charac-

terize and account for ; admitting, at the same time, that the co-operation of a good muscular system will bring about a much greater result. The cerebral centres that discharge their accumulated force into the active members of the body, the limbs, trunk, &c., being large and powerful, we shall witness in the individual a vigorous and sustained flow of natural activity, independent of all the stimulants of pain, pleasure, or objects sought ; the same centres being feeble, there will be a tone of inaction, that even stimulation cannot entirely overcome. Whatever be the mode of accounting for it physically, the distinction is one that is clearly observable in the world of living men. Even in the same person, differences in health, in years, and in the momentary condition of the frame, will often serve to illustrate the two kinds of character,—on the one hand, the ebullient, active, vivacious, enterprising ; and on the other, the languid, inactive, indifferent, and reluctant in pursuit. What some persons are at their most vigorous moments, others are at their ordinary pace. The distinction is shown on the largest scale in the Races : the Europeans, as a whole, having more energy than Asiatics, and the English standing high among Europeans. It is also the distinction of individuals who have been adventurous in conquest, in statesmanship, or in business ; in Philip of Macedon, Alexander the Great, Cæsar, and Napoleon ; although we cannot give a full account of any one energetic character, without adverting also to the existence of certain powerful stimulants that both augmented the amount and determined the direction of the spontaneous current. If there be any one point of physical conformation that regularly accompanies a copious natural activity, it is size of head taken altogether ; this will hold for the Races, and for the most unquestionable instances of individual men and women. A large head may concur with great stupidity, but if there be a marked absence of active disposition, we may safely

presume an inferior quality of nerve, approaching almost to disease. If we were to venture, after the manner of Phrenology, to specify more precisely the locality of the centres of general energy, I should say the posterior part of the crown of the head, and the lateral parts adjoining—that is, the region of the organs of Self-Esteem, Love of Approbation, Cautiousness, Firmness, and Conscientiousness—must be full and ample, if we would expect a conspicuous display of this feature of character. The fore-part of the head would not appear to have the same bearing upon the active disposition as the hinder parts.

Before adverting more precisely to the distinctive manifestations and consequences of spontaneous energy, it is proper to notice some other varieties in it, besides the difference of more or less in the total. We may observe cases where it is rapid and temporary, and others where it is slow and persistent. Persons of either kind are to be distinguished as above the average type of humanity; but in the one case the discharge is vehement, and therefore soon exhausted, in the other moderate and continuous.* In all probability we may connect this distinction with another, namely, the excitable and the stolid; that is to say, a person really of energetic mould may either be easily quickened to a high rate of active display, or may doggedly adhere to an even pace. The horse and the ass are perhaps the best illustrations of this contrast that the lower animals can afford. At all events the varieties now indicated are of frequent occurrence, marking out individuals

The following are examples from the races :—

English.	}	moderate and continuous,
Roman.		
French.	}	vehement, and soon exhausted.
Celts of Britain.		
Italian.	}	excitable, and also continuous.
Ancient Greek.		

for different functions in life. Most of our usual industry requires persons capable of an even flow of moderate exertion : warfare, enterprise, and trade, alternate times of total inaction with moments of intense exertion. The history of the world shows that the inferior stages of humanity are most averse to the continuous, and most disposed to the fitful displays of energy. Where the whole amount of inward force is really great, we cannot suppose, as a rule, that there is a great repugnance to temporary increase for a great occasion ; still, we are bound to remark that there is a class of especially excitable temperaments, like the horse ; and a class that resist excitement, after the fashion of the other animal named. One explanation of the difference is the degree of development of the *sensitive* and *emotional* region of the mind ; the higher modes laying the person open to the full force of influence from without, the lower transmitting the influence in an abated form. If the constitution is energetic to excess, and sensitive or receptive in a low degree, this consequence will follow, among many others, that the pace of action will be self-determined, and not liable to much change by external causes.

Another view that may be taken of the contrast of the excitable and stolid forms of energy, is to regard it as belonging, not to the relative preponderance of the active and the sensitive centres, but to the Temperament, meaning the quality of the nerve generally. In a former page (Chap. II.), I have alluded to the appearances that most decisively indicate degrees of quality. The chief feature is the *quickness* and vigour of the movements generally. Some people are vivacious in all their manifestations ; not those that concern their voluntary purposes simply, or their efforts to gain their ends, but in the displays of feeling, and the successions of thought. Others are slow and languid throughout. Now, if a vehement,

bustling activity accompanies a lively demonstrative manner in all that regards the expression of feeling, and a rapidity of thought and conception, as seen in quick utterance, ready comprehension, and instantaneous responses, we are safe in concluding that the quality of the brain is of a better kind than usual, or that the Temperament is the nervous one. The nutrition of the body flows by preference to the nervous substance, perhaps placing the muscular system, the digestion, or some other organ, below average, and presenting that not unfrequent concomitant of great nervous power, a feeble animal frame. In such persons, every stimulant applied, everything that can rouse a feeling, a volition, or a thought, tells with greater force, and yields a greater return than in other persons. Their habitual demeanour corresponds to the moments of excitement of other persons. And so great may be the tendency of the nervous system to derive nutriment for its own aggrandizement, that this high pitch of the mental manifestations generally, may be sustained all through life; although it but too often happens that the drain is in excess of what the general system can bear, and leads either to temporary fits of exhaustion, or to premature decay of some vital organ. Hence arises the double meaning of the term 'nervous,' as applied to constitutions. On the one side it expresses a system where mind acts with energy in all ways, and is identical with one of the most important modes of human power and superiority: on the other side, it bears reference to the impoverishment of the general system that so often follows, and is then another name for feebleness, or disease.

Thus, then, we recognise, in addition to the difference in the whole amount of the spontaneous energy, a difference in the force of the flow, marking out the persistent type on the one hand, and the more excitable on the other. We see also, that there are two possible explanations of the

character, a local development of the brain, or that higher quality of the substance generally, denoted by the nervous Temperament. We must now follow out the most notable ramifications of the energetic character as thus explained, endeavouring to separate the consequences of pure spontaneity, from those of the stimulation of the various feelings that concur with it in unequal degrees. What we have already said implies the main and comprehensive characteristic, namely, a great amount of action, or execution, in the avocations of life, whatever they may be. Such a man will work harder, will persevere longer at his pursuits, be more devoted to active sports or recreations than another man. If in trade, he will do a greater amount of business; if in handicraft, he will execute more work; if in statesmanship, he will push his advantages farther and resist hostile parties more strenuously; if in the military profession, he will be more dashing in combat, and indefatigable in the labours of the campaign. Whatever his hand finds to do he will do with might. Nothing is said as to the *quality* of his execution: that depends on quite other endowments; we have here a guarantee only for *quantity*. He may do very bad work, but he will not be idle.

The character is best illustrated by the extreme case. We will suppose that this part of the system is unduly prominent, that its increase has been at the expense of the other parts—the feelings and the intelligence. The mere venting of the activity is then the ruling fact; the control and guidance of it for one's best interest, or for the interests of others, being defective. The man is then active, but *desultory*, and incompetent for any useful purpose. If he does good, it is but a chance: the next moment he works mischief. He will neither do the right thing, nor let well alone. He is meddling at one point, and negligent at another. His mere abundance of natural energy is no security for the profitable employment of it. He turns

out a great deal of indifferent work ; begins many things, finishes nothing. Every trade, avocation, and employment of human life, from the prime minister to the road sweeper, will afford pertinent examples to any observer. Take only the instance of a voluminous author. He manufactures thousands of pages, abounding in every imaginable fault and inaccuracy. Take also the man that fails in business, oppressed by the multitude of his abortive schemes. Such an one is the victim of energy, unbalanced by intelligence, and the influence that intelligence has on his feelings. One third of his nature is wild and rampant, because the other two thirds do not raise their heads to the surface.

An instance somewhat less extreme may also be illustrative. Instead of supposing the spontaneous energy to be the sole predominant fact, let there be some one strong feeling in addition, but still with an absence of intellect. There will now be an approach to concentration. The man has a great desire for wealth. The desultoriness of his character will in some sort be corrected by this motive. He will no longer act for acting's sake, and shift about merely because he is tired on one point, and desires a change ; when what he does is obviously productive he will stick by that, and abandon unproductive operations, even although they gratify his love of activity. The intelligence being supposed low, there will be no far-sightedness, nor will there be concentration of a high order ; that is, things but remotely, although surely, tending to riches will not be laboured for. The desultory will prevail over all *distant* considerations.

Spontaneous energy, besides implying industry and activity in pursuits, is one foundation of the qualities of Endurance, Patience, Courage, and Self-reliance. If a man has power to act, the same power is effectual to resist, or to sustain the system against burdens of various kinds. A feeble endowment of natural force succumbs to

obstruction, pain, and difficulty. We all know this from the different phases of our own system, as affected by health or disease. Courage, too, comes of the same parentage. An exuberant energy throws off, or rather does not take on, the impressions of danger. Fear paralyzes action; but the greater the natural activity, it takes the more to produce this effect. There are other adjuncts to both Endurance and Courage; but this is one great support of either. All our experience of men and animals is in favour of the alliance between the *active* and the *courageous* nature. No less is it true that Self-reliance is fed from the same source. The full swing of action carries conviction with it; it is to the sensitive and receptive parts of the mind that difficulties and misgivings are suggested. Action by itself is blind, and therefore confident. No doubt, if the individual's powers are for a time thoroughly exhausted, if he is helpless and prostrate, it will not avail him much that in other states he is full of vigour; the confidence that *persists* through all the fluctuations of a man's bodily state, is not derived from the source that we are now considering. The creature of mere spontaneous energy has not a root of *steadiness* in any characteristic. Endurance, Courage, and Self-reliance will be alike sapped when the activity is low; but assuming that quality to be evenly sustained, these others will accompany it. We are equally able to appeal to the evidence of observation, in affirming the union of Self-reliance with the fundamental property under discussion. It is apparent from the comparison of the Races, from looking at individual men, and from the lower animals, that a creature full of spontaneous energy, as shown by the multitude of its activities, is more given to rely on itself, to dispense with aid, and to scorn dependence, than the organizations of a different kind. Indeed, observation is almost superfluous in the matter, for the contrary affirmation would contradict

itself. The greatest Industrial Race of the globe could not be other than the most enduring, courageous, and self-reliant, unless it had for its rival a race vastly its superior, in certain vital characteristics of the Feelings and the Intelligence, which impress a still higher stamp upon the individual than the abundance of mere spontaneous activity.

Although there is a certain antithesis, or contrast, between Activity in its present form and the Feelings or Emotions, just as both are contrasted with Intelligence, still we might expect to find certain emotions fostered by Activity, as there are others fostered by Intellect. A very active man has emotional phases consequent on that peculiarity; in him, specially, some tendencies in the way of emotion are absent, and others are present. The predominance of the active element necessitates the submergence of the emotional element as a whole. Human nature being limited, if one's vitality runs very much to the active organs, less will go to the other parts. The ramifications of this necessity are very numerous and complicated. They are summed up, however, in the answer to the inquiry, how does a man spend his days? What is his ideal of life? How does he adjust the proportion of his active pursuits to his passive pleasures? How great a share of his time does he, of his own accord, give to business, and how much to the amenities and recreations of society, or the Fine Arts? If he becomes soon weary of holiday delights, of lounging in clubs, of concerts, of novel reading; if he is unable to spend the entire day without some properly business avocation, we are entitled to conclude that energizing is to him more than feeling. If activity is not 'pleasure' in every sense of the word, this man is not a follower of pleasure; he would be active even if the resulting consciousness were a sort of indifference. So irresistible are the promptings of the genuinely energetic temperament, that a man will run upon pain rather than lie still. We

are not always sure that the activity of such a man is bringing him in enjoyment; we know that there are states of morbid excitement, when one cannot but act even when suffering is the immediate fruit. There are many exceptions to the rule that human beings follow their pleasure in all things; and the incontinence of the constitutional activity is one.

While we are safe in saying that the active temperament causes a man to spend his life rather in doing than in passively enjoying, we have also to remark that of the emotions, properly so called, he should be more ready to fall into such as grow out of activity. The question is what are those? There is a complication here, owing to the circumstance that the most prominent feelings that activity ministers to, are often very intense where the active quality does not exist. An emotional nature drinks of the emotions of action along with all others, by nursing the ideal forms of it. The active man manifests Power, but the passive man may be he that luxuriates in the sentiment itself. It is the essence of the pure energetic temperament, still to energize, and not to enjoy even the fruits of energy. He is the procuring cause of emotion to others and not to himself. Neither Cromwell nor Wellington felt that elation of superior might that they have often inspired in those that survey them from a distance. If there be anything that a man of this endowment would naturally aspire to, it would be power or ascendancy, because he finds that he can compass this: but so also he might gain money, or friends, or admiration. On the whole, therefore, it is more correct at the present stage, where we are tracing out the consequences of activity *per se*, to limit ourselves to the *negative* side as regards emotion; or to the tendency to exclude, or keep down, the indulgence of the feelings as such.

The aspects of pure Spontaneous Energy, if correctly set forth in the foregoing description, will show both how it is

to be discriminated, and to what purposes we may apply it in practical life. There are modes of intense activity, due more to the stimulation supplied by strong feelings, than to the natural spontaneity; when a person is active in some object of ambition, and quiescent as to all else, we must ascribe the effect mainly to the prompting of that special taste. The active temperament is a good instrumentality in general industry, and especially in dull routine. Where we want the continuity and persistence of a machine, we do well to procure people of this quality, who, after the requisite training, will consent, better than any other, to become mere prime movers in a narrow circle. A fair quantity of intelligence and a large share of activity renders the Anglo-Saxon race the best workmen in the world. As bodily activity predominates in them, they are more fit for the lower walks of manual industry; the Lancashire and Yorkshire navvies are unrivalled as human machines. A good share of the same spontaneous promptings is of importance in all departments of trade, and in the active professions of Politics, Law, Medicine, and even the Church. The important office of the schoolmaster is much better sustained if this quality exist in good measure; nothing less will give that dogged iteration that the work of teaching requires, whatever the department may be. It is the man of abundant energy that can act the 'bore' in society, by never being weary of telling his story; a more susceptible and less active temperament is sickened by repetitions. While a directing head should possess high intelligence, even at the expense of incontinent and dogged energy, the tools or executive are properly chosen from this last named property. There is a higher kind of activity, made up of a moderate spontaneity, set on by the feelings, and regulated by the intellect, but the suitable mixture is not of very frequent occurrence, nor is it so well fitted for blind and passive subordination.

CHAPTER VIII.

THE EMOTIONAL TEMPERAMENT.

HAVING dwelt upon the great fundamental property of the human and animal constitution, whereby action is produced, without any reference to ends in the first instance, we are now to consider the nature of Feeling or Emotion, which, among other qualities belonging to it, has the power of prompting the spontaneous energy to increased efforts, and of guiding it into specific channels. We shall soon find that the temperament that has Emotion for its predominating characteristic, is in many ways a marked contrast to the foregoing. We are justified in discussing the Emotional character generally before entering on the particular emotions, whose individual ascendancy causes the numerous genera and species of this 'Natural Order.' There is such a thing as a constitution more Emotional on the whole than Active or Intellectual; although we cannot in the present case stop short at the general peculiarity.

The following considerations will make this position more evident :—

In the first place, in order to our having any emotion, there is usually, and I believe necessarily, a certain physical embodiment whose display outwardly makes what is called the *expression* or signs of the feeling; the features, voice, limbs, and body generally, are more or less agitated, and the influence extends beyond the moving members to the glandular secretions and organic processes. Now the parts of the body thus actuated are pretty much the same for all feelings. The stimulation may be very various—

love, music, balmy odours, pictures, gain, admiration—but the instrument played upon is one. The members and processes affected to external manifestation, and a certain nervous mechanism connected therewith, forming the highway of communication between them and the primary impulse, of whatever sort that may be,—are the portion of our framework common to *all* displays of feeling; and it can hardly be doubted that the *quality* of this common apparatus is of vital moment as regards the quality of the emotional state, or the consciousness itself. A joyous impulse has a very different effect on a person just come from seeing three comedies, and on the same person entering the theatre. Both smiles and tears may be very fresh, or may be completely exhausted. So in comparing one individual with another, there may be the greatest difference of natural endowment in the mechanism of emotion: in one, the nervous, muscular, and secretory organs may be overflowing in vitality, and able to sustain great and prolonged stimulation; in another, the same parts may be by nature poorly developed, and unequal to much exercise; in which case, great excitement of the feelings would be a burden and a fatigue instead of a pleasure. The inequality is familiarly seen in that comprehensive phase of our emotional nature, the Sociability, or the power of being much in the society of others, and of maintaining an active interchange of sympathies; as when a large family is not felt to be burdensome, and when the desires are for an extended social intercourse. This is a very different endowment from the spontaneous energy, above spoken of, available for all kinds of productive labour. The man that can endure the longest fatigue-marches, or the most laborious official drudgery, may be quite unfit for spending his days in gaiety; the kind of strength that suits the one being inapplicable to the other. There is a physical constitution formed for emotion, and not unfrequently marked

by the exterior characteristic of a rounded and full habit of body, a constitution apparently of great vigour in the secreting organs, and less inclined to muscularity. This is one of the most probable general peculiarities of the feminine temperament, as it is a peculiarity wherein some of the other Races stand contrasted with our own.

Whatever, then, be our special tastes, likings, or dislikes, the degree and duration of pleasure or pain that we derive by means of them, essentially depend on our being formed for emotion, or the opposite. Our happiness is not determined solely by the extent of gratification afforded to all our strongest propensities, and our protection from whatever specially pains us; there must also be taken into the account the whole capacity of that part of our frame that vibrates under pleasure or pain. So material an element is this, and so great the disparity occurring between one man and another in this respect, and between the same person at various times, that a very limited stimulation in the way of good things may have a richer result in one case than the choicest combinations in another. So far one of the oldest common-places is correct, although it is not equally correct to infer that, therefore, a life of few stimulants would be in all cases as happy as one with many.

Another proof of the existence of a common physical basis of all emotion may be obtained from the great similarity of our emotional states, notwithstanding that they are aroused by causes the most unlike. Pleasure is an almost identical mental experience, no matter what be the source. The genial warmth of the summer sun or the winter hearth, the refreshing meal, the stimulus of wine, friendly intercourse, the attainment of wealth or of honour—all excite that unmistakeable glow that we term pleasure; and the effect is nearly alike, the differences being mostly such as would happen in the same impression repeated under

different circumstances. This community of mental nature must be held as connected with the existence of a common physical substratum or embodiment; and it may be of far more consequence, as regards the degree of the feeling, that the organs of pleasure in general are able for their work, than that the source of their stimulation is a point of strong susceptibility in the individual case. The illustration is equally good for pain, and the inference equally strong in favour of the position now taken up. The puckered features and sharp cries tell us that a fellow-creature is suffering, but do not discriminate one cause from another; nor is it of much consequence to the victim's self whether the wound come in at one sense or at another. The irritation, of local origin, has a general or diffused embodiment; and it is to this common diffusion that we should ascribe the substantial identity of the *state* of pain, in spite of the variety of *causes* of pain.

Whatever, therefore, be the exact region of our system that serves for sustaining the wave of all pleasures alike, or all pains alike, the goodness or the enfeeblement of that region is a prime condition of the susceptibility to happiness or misery; and the various senses and other inlets whereby we are stimulated to the one or the other, are in fact only of secondary, although still of real, importance. In this region there are evidently a certain muscular portion, all the muscles of expression of the face, voice, and trunk (the diaphragm, for example); certain organic processes—one of the most notable being the lachrymal secretion, which has both a tranquil flow and a violent or spasmodic discharge; and a portion of the brain which we are unable to circumscribe. The peculiar constitution of women would seem to indicate that a good deal depends upon the constitution of the body generally, as distinct from the brain.

An important question here arises—namely, whether a good emotional organism makes us susceptible to higher degrees and greater continuance of *pain*, no less than of pleasure; for if so, the endowment is one little to be envied. To solve this question fully would be to arrive at the ultimate physical basis of pleasure and pain—a problem of no small difficulty, and on which hardly even a suggestion exists in our scientific literature.

I will here venture upon what I think the most probable difference in the bodily condition, answering to the two opposite modes of our mental condition, although the hypothesis is not to be held as absolutely correct, without some qualifications and explanations that cannot be supplied in this place. In pleasure, it would appear that there *is a stimulation, or exaltation, of some or all of the powers of life*; in pain, a depression of the same powers. In such cases as the contrasted states of hunger and repletion, chilling cold and genial warmth, bad air and good, gloom and sunshine, the hypothesis holds in a way not to be mistaken. So in the shock of acute pain, as under a smart blow, we feel a decided check, as if the energies were suddenly lowered for the moment; and it takes a little time to recover. On the other hand, pleasure, not in excess, is always mentioned as one of the influences that raise the tone of the body; while losses, affliction, and want of success in our undertakings, no less surely depress the bodily system. It demands a certain surplus of corporeal vigour to maintain the health unshaken by disaster; and no amount of strength will suffice if the evil influences are long continued. Granting that these instances, together with a number of others of like tenor, may not be sufficient to establish an induction of so wide a compass, they certainly show that, over a considerable range of our chief pleasures and pains, there is an actual coincidence between pleasure and exalted vital power, and

between pain and an arrest or deterioration of some vital function. The contrasting *expression* of the two states supports the same view; the expression of pleasure is an erect body, expanded features, hearty exclamations, increased respiration, and exuberant laughter—all this expenditure being only what the system is able to afford; while in pain the body is bent, the features collapse, the voice gives forth a groan, respiration is retarded; or if, as sometimes happens, the acuteness of the shock stimulates convulsive movements, they are what the system cannot afford, and prostration follows. The one set of appearances are in the direction of energy added to the system, the other in the direction of energy lost, or a downward career, tending to inaction and lifelessness.

Without either adducing all the proofs that might be offered, or the explanations that would remove some of the more obvious difficulties, in regard to this hypothesis, I consider that we may hold it as sufficiently well-established to sustain the following answer to the problem above propounded. It was asked, whether a large emotional nature would be as liable to protracted waves of pain, as to protracted waves of pleasure? My reply is, by no means. On the contrary, the same power that enables the constitution to abound in pleasurable sensibility, to yield a long resonance to every grateful touch, and to endure without satiety one stimulant after another, would diminish, or wholly submerge, the incidence of pain, and would give less, instead of greater, misery under evil influences, than would happen to a person of a different mould. I believe this to be the *general* rule; there are exceptions, but not such as to invalidate the principle. The proof of the assertion follows, if the foregoing theory of pleasure is admitted. To enjoy much there must be an abundant vitality in the system, or if not over the whole system, at least in certain parts, which we may not be able to specify

with minute precision ; and those very parts must have their vitality impaired below the mark in order to put the individual to pain. If this region is naturally exuberant, we can both reap a large product of pleasure, and afford a considerable abatement of force before positive pain is the result. Doubtless, he that has a high habitual standard of pleasure feels the smart of a reverse, if reduced only to an average measure ; since the law of relativity, or of comparatism, over-rides every other principle of the human mind. Still, this is not enough to level all natural distinctions, any more than a rich man's sufferings under losses that leave intact the body of his fortune, put him on a level with a poor man's deprivations. It is not in the nature of things that any human being can be raised above the possibility of suffering ; but there is a real difference between one man's capital of enjoyment to be deducted from and another man's. There are moments in every one's life, when a small irritation annihilates all the force of resistance that keeps the mind from positive wretchedness ; and there are constitutions that can undergo a large abatement without running into the slough of despond. These last are the genuine instances of a well-endowed emotional temperament.

Observation here confirms the result of reasoning. The persons naturally abounding in a happy flow, evidently owe their distinction, not simply to their taking kindly to every pleasurable impulse, but also to their withstanding, or throwing off, the inevitable shocks of pain. We can notice in them that the depression of an evil event is much more rapidly worked off ; that the innate power, sufficing for a high tone of pleasure, avails also for surmounting irritation. There is a delusive show of emotional capability, the result of an excitable constitution, that must not be confounded with what we are now considering. Persons are often found that pass between the extremes of joy and misery ; their case proves nothing against what is here

advanced. In every aptitude of the human mind—whether active, emotional, or intellectual—there is a possibility of making great temporary displays, beyond the natural strength of the system to support, and therefore followed by a reaction. The true measure of power in each department is only to be taken by looking at the average condition of each individual, or at the tone habitually sustained if the temperament be a steady one. Excitable persons owe their misery not to depressing influences, but to their previous happiness; and if, in the turn of the wheel that brings blackness and shade, a cause of misery is superadded, language is unequal to depicting their gloom.

Enough has probably now been said on this general speculation, intended, in conjunction with known facts, to establish the existence of a character for emotion on the whole; and it remains to state more fully and explicitly the appearances growing out of this character, being the tokens of its presence, and also the effects produced by it in the economy of life. To give this description in a systematic form, we should commence with the external manifestations, and then advert to the inward consciousness, or mental tone, of persons so distinguished, and to their actions as growing out of that mental state.

The expression and demeanour of an emotional nature is necessarily abundant and intense. In extreme instances, we cannot mistake the character. The manifestations of every kind of feeling are vehement and protracted, and are always ready. In joy, the tremor of the frame, the glances of the eye, the smile, the laugh, the embrace, are a torrent that cannot be resisted. Even in depressing states, such as would sink an ordinary being into lifeless collapse, this constitution can send forth an energetic wail, and inspire a fury of demonstrative grief that strikes awe into a beholder and entrances an artist;

Even in their ashes glow their wonted fires.

The description of the approach of the young Goethe, 'like a wolf in the night,' conveys some notion of the ardent temperament. The social agency of such persons is immense; they are the soul of company, the promoters of joviality and glee, and stimulate even the languid natures to a momentary excitement. Their presence is a moral power; they carry others before them; to sail with them is easy, to oppose them arduous. Feelings so energetically expressed are so much the more contagious, and it takes an effort not to sympathize with their sentiments and opinions. Hence the emotional temperament is a powerful engine of oratory; one large class of orators derive their influence from this source. We need only recal Peter the Hermit, Luther, Fox, O'Connell, to see how much it counted for, even where it was not the whole of a world-famous oratorical power. A consummate actor may assume on the stage, for a half-hour together, an energetic and passionate demeanour; and we all know the tumultuous stir that may be imparted to an audience even by the show of intense feeling; but those men had the reality, which alone supports an abundant and perennial flow of ardent expressions, gestures, and tones, with suitable ideas. The parent, the teacher, the preacher, the leader of assemblies—acquire ascendancy with ease, if they have this copiousness of the emotional fountain; a dry and languid temperament can compete with them only by superiority in the other regions of the mind, by natural energy in execution, or by great intellectual force; but as human beings are constituted, the man of strong feelings, adequately expressed, is likely to be the favourite. Being made to feel, to have our choicest emotions induced upon us, is, in reality, the final end of all our labour; and he that can effect this for us at once, is the man after our own heart.

Such being the outward aspect of the character in question, or what it is to others, in virtue of the physical em-

bodiment that distinguishes it, we may next inquire what is the *inward* experience, which is what concerns the individual's self. This may be soon summed up. They that have the character, in order to know it, must take pains to ascertain how other people are affected that are of the opposite make; to them their own mode of feeling seems the ordinary standard of existence, and nothing wonderful; which, together with the fact that theirs is the *strong* type, makes them somewhat tyrannical towards such as cannot cope with their vehement modes of sensibility. The only way that any of us can enter into the contrast of the two opposite characters, is to compare the different phases of each one's own experiences. The weakest know moments of energetic and well-sustained emotion; the strongest know what it is to be languid and feeble, even in that which constitutes their strength. The average man must refer to his times of youthful zest and exceptional buoyancy, to the emergence from a long confinement, the first outburst of a holiday, to some moments of unusual geniality—and consider what it would be to have those states in almost daily frequency; to be for six hours together what he can now be for one hour; to have in the decline of his years all the emotional force of his youth, the youthful experience having been in that proportion greater. A feeble or ordinary temperament, even when really interested, is soon fatigued; the other seems to start fresh with the sun, and to find the day too short for its powers of enjoyment; in the one case the mind itself is used up first, in the other, the object is withdrawn long before the feelings are satiated. Amusement and pleasure are always welcome, and unfailing in their power to engross the mind whose strength is emotion. There will be some kinds preferred to others, according to special taste, but what is enjoyed is enjoyed richly, and often. It is a consequence of this large capacity in the region of the emotional that such natures

are not usually nice or difficult to satisfy ; it is when the power of enjoying is but limited, that we have to cater for refinements, and labour to keep off irritation and coarseness. If we refer again to the highly relevant illustration of youth as compared with age, the remark is self-evident, not to say stale.

The conduct and pursuits that characterize the emotional nature may now be glanced at. Supposing that the spontaneous energy is not below the average, which it is apt to be from the excess of the other, the direction given to it will be peculiar. As the emotional man is more 'sufficient for himself,' more spontaneously happy, he will be less urged altogether in the way of active pursuit ; in fact, will show a certain inactive, indolent disposition compared with those of a slender endowment as regards natural enjoyment. This is the first consequence. The next is, that when he is active, as he sometimes is, the occasion is one that strongly engages some of his powerful feelings ; when thoroughly interested, he can sustain a protracted effort, when not interested, he is quiescent. We see now the contrast between the active and the emotional temperaments. The one overflows in action under slight motives ; the other is only to be moved by a powerful feeling, but may then be moved strongly. The active man does his work better, because he can do the uninteresting drudgery, while the other neglects whatever has not an intense and sustaining interest.* One man can take a walk without any object in view more engrossing than the prospective warding off of ill health ; the other cannot move abroad

* Hence a great genius, whose activity depends on his feelings, is sure to have great deficiencies ; perhaps he delights to block out an original scheme, but has no taste for execution and finish, and if so, he cannot be induced, by the mere bad consequences of issuing imperfect work, to employ his powers where his emotional excitement does not keep pace with his hand.

without a gun, or a fishing-rod, a companion, or something to see. The things chosen by the emotional constitution are in the direction of the voluminous feelings; they are the objects of the tender and social affections, religion, fine art, or personal egotism and ambition in its most palpable forms—in money, station, popularity, power. I call these the voluminous feelings in opposition to the less exciting feelings, as the love of knowledge and truth; the desire of real instead of showy merits; the sense of security from remote evils. It requires a considerable amount of the properly energetic disposition to make one look far ahead for the prevention of evils; and moreover, such an one generally has a lack of interest in the immediate present, the fault of his temperament as much as of his circumstances. But I shall afterwards endeavour to clear up more fully this complication of opposing motives.

Indolence is thus the tendency of the purely emotional disposition. Nor are these the only reasons. The active man puts forth his energy, to ward off evils that would otherwise fall heavily upon him. The temperament powerfully cast for emotion can swallow up a great quantity of present evil, before the lowest depths of wretchedness are reached. The vehement demonstration, the lively wail, the pathos, and the complaint—not to speak of the artistic shapes that these can be made to assume—are the specifics for misery to this class of sufferers, who are peculiarly fitted both for the copious venting of their feelings, and for being comforted after that fashion. He that cannot afford this luxury of grief, to whom it would be utterly exhausting and unproductive of any genuine assuagement, must apply his energies to ward off misery beforehand; his affliction is too deep for tears, too drastic for the composition of a poetical lament.

Farther, the character that we are describing is of the

sanguine, or hopeful, temperament, on which I have already remarked in speaking of the phrenological organ of Hope. The strong emotions make strong beliefs ; if the one is on the bright side so is the other. The feelings may be powerful, but gloomy, and then the anticipations are dismal accordingly. But we must presume, for reasons already given, that the endowment in question tends to happiness in the first instance, and then its dreams are hopeful ; there are causes that may lead to the opposite state with its consequences on the believing temper, but as a general rule, the sanguine character is to be predicated. Such persons when they do believe, are good believers ; their faith in whatever creed they take up is thorough, and can carry them over obstacles and opposition. Whether it be to stand by their family or their friends, to confide in their own powers, to adhere to their religious views,—they carry with them a greater body of assurance, greater impetus of partisanship, than the laxly formed emotional framework ; they may want intellectual consistency, they may not be always ready for active work, because their feelings must be directly touched by the thing to be done, but they are to be counted among the sincere and energetic adherents of whatever cause they espouse with their hearts.

There remains only the relation of the character to the Intellect. The constructions of the intelligence are emotional by preference in the constitution we are now considering. Poetry and impassioned eloquence are much more likely to result from a mind so circumstanced than science. There being a distaste for operations that carry no immediate strong feeling with them, the dry details of scientific knowledge are repelled, unless, as may occasionally happen, they seize upon some susceptibility or interest of the mind, and then they are pursued with as much avidity as is shown in the generality of cases towards Art, Religion, or the literature of the warm emotions. In philosophical

speculation, it is a complaint with this class of minds that certain doctrines are *cold*; truth is not a sufficient recommendation. The great mass of our Literature, properly so called, the sciences being excluded, is intended to stir up emotions of various kinds; History, Poetry, Romance, Criticism, &c., are calculated with this express view; Theology provides for the religious sentiment; and the affairs of daily life are so represented as to excite an attention far beyond the sphere of their immediate interest. A cultivated intellect, based on the emotional nature, will choose some of those avocations of strong human interest—the preacher, the poet, the political writer or speaker, the historian, the critic—in preference to common industry or science; and should these last be thrust upon him as his profession, the other pursuits will constitute his recreation and the solace of his retirement.

Of all men known to us with historic fulness, there is none that more completely answers to the view now given of the emotional nature at large, than Charles James Fox. In order to sum up the essential features of his character, we have only to abide by the general quality of emotion on the whole, the specific tastes are immaterial in comparison. His obese frame corresponded to the prevailing type of the emotional man; the fervour and warmth of his expression inspired attachments all around, and made a principal part of his parliamentary eloquence. His enjoyment of life was intense; (witness the expressions, ‘Oh, how fine a thing is life;’ ‘Oh, how glorious a thing is summer weather.’) His power of persistence in society, in play, in recreative reading, even in the exhausting conviviality of the times, was a theme of astonishment, seeing that it did not unfit him for his parliamentary activity. Both the virtues and the defects of his character, as a statesman and as a man, are explicable from the same predominant temperament. The generosity and recklessness of his disposition,

his unbusiness views of things, his unfitness for the drudgery of office, his untrustworthiness as an adviser in remote contingencies, his unbounded popularity in spite of all, might have been predicted as the almost certain consequences of the single peculiarity that we are here considering. He had the '*fond*' of a great man, in any walk where personal presence is the source of ascendancy. His rival, Pitt, was also his Psychological foil. Pitt wanted the Emotional nature, and possessed in its stead the Active and the Intellectual constituents ; these fitted him, first for taking on his father's cramming, and next for a singleminded devotion to business. It matters not that he had moments of gaiety, that he had a small number of personal devotees, that when he chose, he could shine at the dinner table ; these few drops of sociability, genuine so far as they went, but reveal the penury of this part of the man, when we come from considering Fox's exuberance.*

The Celtic races in general—Irish, Welsh, Scotch Highlanders, French—are emotional in comparison with the Teutonic races, while even among these some are more so than others ; the lowland Scotch and English having least of the peculiarity. The ancient Greeks resembled the modern Celts in this respect.

* Mirabeau might be styled a French Fox. A remarkable delineation of the emotional temperament is presented in Alfieri's autobiography (*La Vie d'Alfieri*). The writings of John Paul Richter display a more than ordinary amount of the emotional nature, which influences all his creations in a marked degree. Poets and Romancists in general are compounded of Emotion and Intellectual force, but Richter is exceptionally developed even in his own class.

CHAPTER IX.

SPECIAL EMOTIONS, OR TASTES.

IT was necessary, as I conceive, first to recognise the emotional nature as a whole, in virtue of the fact that there is a mechanism common to the manifestation of all the states of feeling, which mechanism may be well or ill developed, well or ill-conditioned, irrespective of everything else. If the common instrument be bad, it matters little that a powerful blast is operating upon it. We must next endeavour to ascertain the distinctive sensibilities of the human mind, which may vary in individuals and give them a character for being moved one way rather than another. Given a certain mode of the emotional mechanism, what are the effective stimulants in each case for bringing it into play? Its own natural force must always be the first consideration; the force of the different centres of our special sensibilities,—love, hatred, wonder, beauty,—is then to be counted up. So powerful may be the resonance from some one centre of emotion, as, for example, vanity, that a naturally feeble mechanism of common emotion may be actuated to a considerable outburst. There is in each person one or more highly-charged centres, with others of lower charge, and to indicate those predominating sources of inflammability is to give the natural tastes, the ruling passions, the influential motives of each. One is a lover of art, another delights in science, a third cares supremely for sport, a fourth is engrossed with wealth. On these respective sides of the human organization, there is a more than ordinary development, physical and mental

either there is a local enlargement of the cerebral mass, after the phrenological idea, or some other mode of heightened energy, so that when that part is favourably affected a copious rush passes thence to the emotional apparatus and the energies at large, giving increased vitality to the system with the attendant exaltation of the mental tone ; while on the other hand, adverse influence has a more than ordinary efficiency to depress the whole man. With the common apparatus powerful and fresh, the grateful titillation of the highest sensibilities makes the maximum of possible bliss.

When the manifestations are powerful, not so much from a large emotional nature as from strong special sensibilities, the character may then not improperly be termed *impulsive*. I should be disposed to quote Burns as a good example.

I will now state what seems to me the best analysis of our special emotions, being mainly the scheme set forth with detailed illustration in my treatise on the mind. Everything of the nature of emotional sensibility is included either under Sensation, or under special Emotion. Sensation has a mixed aspect according as we look at the pleasures and pains that result from it, or the intellectual elements that it furnishes. Music is pure pleasure, articulate sound is a means of informing the intellect. It will serve a good purpose to keep these two characteristics wide apart in the present exposition, inasmuch as confusion often arises from their being too much mixed up together. Without further preface, let us proceed to the detail.

I. MUSCULAR EXERCISE. — This is an unquestionable source of pleasurable and painful sensibility, of which the amount may be very considerable, and may attain the rank of a taste, or passion. It is in every respect probable that the quality of the muscle has something to do with the strength of the taste ; an athletic man is naturally the

man to fall into athletic pursuits with zest. But muscle is not the whole explanation. Strong people do not always show a preponderating pleasure in exercise, and weak people are sometimes very fond of exertion up to the limits of their power. We must here, as in other cases, carry the explanation as far as the brain, and imagine some endowment in the centres in immediate relation to the muscular movements; something in the quantity or the quality of the part of the brain that actuates the larger masses of muscle. The pleasure may have something to do with the active spontaneity above discussed; by which I mean that the flow of nervous power towards the active members being great, the pleasurable wave diffused, when that flow is in healthy profuseness, is correspondingly great. This would identify the delight in exercise with the *nervous* endowment of the active temperament, rather than with the muscular. We are quite safe in supposing that those temperaments must have a pleasure in pouring out their active forces, but the point is too subtle to determine whether there be an aptitude besides for active pleasures. At all events, the quality is both intelligible and characteristic, and proper to be noted in any case of deviation from the common average.

We have here a mode of sensibility that is in contrast with the emotional nature generally; for although pleasure results from both the active and the passive modes of mind, the two cannot well co-exist; when we are in the active mood we cannot take in passive delight, we may merely alternate from the one to the other. The emotional character as above discussed is essentially, although not absolutely, passive: such a character does not need to resort to athletic amusements or active exercises for its pleasure, although it may want them for health, or other reasons. A low emotional endowment throws us more upon activity for mere gratification, as also upon the exercises of the intellect, all which serves to illustrate more and more

the contrast of the different natures. But as regards the pleasures of muscle, some are essentially active: sports, athletic games, and violent exercises generally, suppose the system in its highest phases of pure action; others imply only a feeble current of outgoing energy, and are compatible with an essentially passive condition, so much so that they count among the pleasures of a temperament essentially emotional in its foundations. Carriage exercise is a familiar illustration. The pleasures arising from repose, after a sufficient amount of exertion to make these a reality, naturally fall into the passive division.

The truly active delights, then, may be expected to be found among persons of the active temperament—the young, the male sex, the energetic races and individuals, and, in fact, may be referred to as one of the criteria of that constitution; at least, until such time as it can be shown that the pleasure may attain the height of a passion without the concurrence of great natural or spontaneous energy.

II. SEX.—The phrenologists followed Gall in giving adequate prominence to the amative propensity as an element of character, and a very frequent ruling element. It must be obvious enough that we have here the generative organism as the foundation, and a certain portion of the brain co-operating therewith; the strength of the propensity resulting from the two jointly, as already remarked in criticising the phrenological organ. The tests for distinguishing what is due to the cerebral development can be nothing else than the habitual predominance of amative *ideas*. To account for the passion of love in all its extent we must add other elements. The sensuous attractions of one sex for the other—through sight, hearing, touch, and, in the lower animals at least, odour—have a powerful determining share in the effect. We must farther include the *contrast of character*, which is everywhere a bond of

union, illustrated in the familiar instances of contrast of stature and of complexion. The strong unites with the delicate, the erudite with the tasteful, the useful with the ornamental, and so on. The whole intensity of the flame of sexual love will depend on the combined total of those influences; and seeing that they may be all in great force, and the flame be kindled in an emotional temperament, we need not wonder at the conflagration that sometimes blazes forth in this region. Of the accessories, sensuous charm is most effective in minds susceptible to art; but even should this susceptibility be small, the magnetism of contrast may still operate with great power. It is probably this last element that makes the attachment to one—the other forces would not compel such a narrow selection.

The characteristics of this, or of any other, strong emotion, are such as, the intensity and continuance of the pleasure obtainable from it, the corresponding pains when thwarted, the energy of pursuit stimulated, the influence on the belief, and the occupation of the mind with the objects of the feeling. Any emotion affirmed to be powerful without those decided tests, is hollow. The pleasures in associating with the opposite sex, the pains of disappointment, the labour endured or the convictions engendered, and the thoughts kept at work on account of a beloved one—are not unfrequently at the passionate pitch, submerging, for the time, many powerful feelings of the human breast. History shows us how prevalent the amorous sentiment has always been in the human constitution. Races differ somewhat in this respect, but probably the difference is more in the emotional temperament altogether, than in the special susceptibility to this mode of inflaming it. The constitutions most exclusively formed for action are still subject to the sway of amatory passion, although it is not their nature to dwell in the atmosphere of any emotion as

others can. Domestic institutions, and the various modes of bringing the sexes together, are the indications that society affords of this passion, while the extraordinary share that love has in all the departments of Art, testifies both to its having an eminently artistic side, and to the diffusion of its influence among human beings. Nevertheless, from this being the least avowed of all the strong feelings, its operation in conduct and affairs is seldom rightly estimated beforehand. At one time we fancy that we can draw up against the stream of another's passion, when in fact there is nothing left for us but to sail down with it, and we may be just as much mistaken in the opposite assumption.

III. ORGANIC SENSIBILITY.—It has been felt, that the enumeration of the Five Senses has left out an extensive mass of human sensibility, of essential importance in the emotional life of every human being. The Alimentary sensations alone count for a large item of happiness or misery; the feelings connected with the healthy or unhealthy state of the functions of Respiration, the Circulation of the Blood, Secretion, Excretion, Assimilation, &c., are numerous and strong. There is an organic condition of the nervous substance, whereby it affects our mental tone, apart from all properly mental influences; it is on this that narcotics have their effect. Now, supposing an average healthy state of the human being, there is still a great disparity among individuals as to this organic sensibility. Some have a remarkable indifference to purely organic influences, others are tremblingly alive to them, elated to positive pleasure when they are favourable, and conversely. The one class are much occupied with the cares of the person, with the prevention of uncongenial circumstances of atmosphere, temperature, dress, food, &c., the other are reckless and indifferent. It is not simply on the borders of valetudinarianism, but by virtue of a constitutional sensibility in

these matters, that some are so careful of their healthful sensations. With them happiness is more than half achieved when the bodily condition is prosperous. Doubtless there must be a considerable liability to fall off from this good condition, which is really a kind of weakness in itself, but it may be a weakness natural to the system, and implying no other disability. The guarding of one's organic sensations is apt to run to the excess of hypochondria, which may therefore be so far an overstrained anxiety, just as a mother may get into foolish fears from being too much engrossed about her child. To discriminate hypochondria, or false alarm, from a mental depression indicative of actual disease, is singularly puzzling at all times; probably one aid in the discrimination might be furnished by inquiring, if the person was naturally susceptible to minute degrees of the healthy and unhealthy influences, as atmosphere and the like; in other words, whether there was originally a keen consciousness of organic states. The late Lord Jeffrey was a man of this sort.

I have reserved for separate consideration the subject of Alimentary sensibility, so properly reckoned by the phrenologists in their catalogue. This is entirely distinct from the special sense of Taste, although closely bordering upon it. In fact, the proper gustatory sensibility shades into the more voluminous, although less discriminating, sensibility of the stomach. It is quite certain that constitutions differ materially in the degree of prominence of the digestive feelings. As in other cases, the explanation lies partly in the character of the alimentary organism, and of the nutritive system generally, and partly in something beyond these, which can be nothing else than the special corner of the brain more directly affected by the digestive states. A powerful stomach demands and takes in an abundant supply of food, and yields in return the agreeable feelings of healthy digestion and nutrition, elevating and

sustaining the entire tone of animal life. If, besides this, there is a special development of the cerebral centre, good eating is still more enjoyed in presence, and longed for in absence. It then counts for a predominating taste and pursuit, and we have presented to us the true *epicure*, a character of frequent occurrence, in communities sufficiently civilized to possess the resources of elaborate cookery.

IV. SPECIAL SENSES.—A great variety of character exists as respects one and all of the five senses; and the points of difference become more numerous and important as we rise to the more intellectual of them, hearing and sight.

Taste goes with alimentary sensibility in constituting the epicure. The feeling properly called *relish* begins in the mouth and continues into the stomach. With due cerebral support, this sensibility to the relish of viands becomes the basis of much pleasure, actual, anticipated, and retrospective, and, as already hinted, may stand forward as a leading object of a man's pursuit, determining, to all practical purposes, his character. It is not that this is stronger in him than all other feelings put together, but that we generally choose some of our naturally foremost sensibilities as the subject of special cultivation, devoting ourselves as it were to that, and making more of it in the end than we found it at first. The ruling passion becomes so, by artificially heightening what was originally only a little above the other feelings, so that the eventual superiority does not show what was the primitive difference. It is thus that human character is simplified by concentrating the forces on one or two out of the great number of native susceptibilities, the rest being left in such a condition of inferiority that they may be often practically left out of the count. The full statement of character would require us to omit nothing; but an approximate statement, roughly correct for most purposes, is obtained if we can find out the few preponderating ingredients.

Smell is a pleasure-giving sense, and may be more or less developed for this end. The odours of the garden, and the scents of the perfumer, are not equally courted by all. Some of these rank among stimulants, as snuff, eau de cologne, and ether; others have a genuinely pleasurable effect of sweetness, or fragrance, as the violet. As a minor point of character, we should not omit this susceptibility. The enjoyment of colour co-operating with it, yields the passion for flowers.

Touch is a sense of no ordinary moment, even in the exclusive point of view of pleasure and pain. Having a greater area of sensitive surface than any other sense, the sensibility developed may be very powerful. Soft pressure and moderate warmth give the most pleasing sensations; acute smarts and extremes of cold and heat are the most usual pains. The contact of the warm, soft body of another living being is a most exciting stimulation, both with human beings and with the lower animals. It would appear probable, that the newly dropped lamb is retained at the mother's side through the magnetism of the warm touch, before experiencing the still more powerful sensation of sucking the teat. This contact is the first foundation of the tender sentiment mutually entertained between mother and offspring. The various sensual relationships of human beings are greatly connected with this fundamental sensibility, and if we were curious to inquire into that region of the mind, we might set down the fact of an original difference in the skin sensations as entering into the sensual temperament. Aristotle defines sensuality as residing in the senses where there is physical contact.

Hearing.—It is not usual to advert to any differences that there might be in the susceptibility to mere sweetness of sound or the opposite; the chief peculiarity noted is the 'musical ear,' which in some persons is remarkably developed, in others, very deficient. As already remarked, this is

almost entirely resolvable into the delicate sense of the 'pitch' of sounds: for although there are other effects in music besides the melody and harmony of notes, as time, emphasis, cadence, &c., these would not of themselves amount to a musical sense. Nothing could better illustrate the outgoings of a strong emotional sensibility, than the known consequences of an ear for music. The amount of pleasure resulting from it, the possibility of enduring the excitement for long periods, without palling the direction of the energies and cultivation of the mind upon the one subject, to the neglect of many other tastes that but for this would have had a considerable efficacy,—all show what are the results when some one of the original feelings of the mind takes a start of the rest.

Under the sense of hearing should also be placed the ear for Elocution, or for the melodies and cadence of articulate speech, which does not necessarily accompany the ear for music proper. It is the cultivation of this that constitutes the physical exterior of an orator, and in part, of an actor, and we find it sometimes worked up so as to yield a powerful charm. Some people are especially sensitive on this head, and being so, they not only court the displays of oratory, but they naturally attract to themselves a finished elocution, and become, in that way, effective and pleasing speakers.

I have more than once remarked, that it is a combination of sense and of executive organs that makes an artist in any sphere. An ear and a voice make a singer or an elocutionist; an ear and hand, an instrumental performer. This is obvious enough in these instances, but it is very common to lose sight of the essentially twofold nature of the artistic endowment, and to attempt to resolve it into a unity, or some single effort, called genius.

Sight.—This sense has been well nigh exhausted in the foregoing pages, and I here only sum up in brief what has

been so abundantly detailed. First—The pleasure of colour and its harmonies, giving a love of the face of nature, painting, coloured decoration, &c. Secondly—The muscular pleasures of form and movement as seen by the eye, which are various and ramified. The sculptor's eye is for form more exclusively; the painter needs it in the second degree, next to colour. The analysis of the graces of form and movement is a subject for psychology, and makes a large part of the problem of the Beautiful. Some artists, like Scheffer, excel in form, others are eminent for colouring. The sense of forms extends also to order, symmetry, and proportion.

Regarding the five senses generally, a question is sometimes suggested, whether there be such a thing as an endowment for sensation as a whole, or a susceptibility to everything that enters the mind by the senses, as opposed to a love of what is called ideas of reflection. We sometimes see people remarkably 'sensitive' at every pore,—eye, ear, touch, smell, taste, seemingly all acute in an equal and high degree, as if there were some common organization whose development favoured every kind of sensation. It may be doubted, however, whether in reality this be so; the sensitive subject is usually a *nervous* subject, or one who is keenly alive to every kind of impression, by virtue of a powerfully acting nervous system on the whole; the active *impulses* of such a person correspond in vivacity to the sensations. It is not unusual, however, to meet with what might be called an artistic temperament, an individual susceptible and skilled in various fine arts, and, it may be, very deficient in the scientific aptitudes. We see persons combining, as regards both taste and executive power, music, painting, and poetry. Can this be explained simply by the accidental concurrence of all the requisite gifts of the ear and the eye, or is there any tendency for the sensitive organization to be developed as a whole? To this, I

should say, that although such concurrences are to be met with, we find also cases of strong artistic tastes standing single, as music alone, painting alone, poetry alone ; and, in the next place, that in all probability the *emotional* temperament, as above characterized, would favour the manifestation of all the artistic sensibilities wherever their germs are to be found ; and, excepting this common emotional organization, I hardly know any circumstance that would lead us to assume a common basis of the susceptibility to sensation. Possibly the *absence* of the Scientific tendency, however that may be resolved, the Causality of the phrenologist, would leave more scope for sensational effects, and consequently for the enjoyments and occupations connected with fine art.

But as a general rule, no constitution is ever cast without one or more sensibilities of the artistic kind ; the hardest statistician has either a musical ear, a love of painting, or a fondness for the theatre. Bentham, who defined poetry as 'misrepresentation in verse,' and identified beauty in the landscape with the associations of plenty, had a decided musical taste.

V. WONDER.—Of Emotions, not sensations, I specify this in the foremost place, as perhaps one of the most unequivocal and elementary of the whole class. Ample justice has been done to it both by Psychology and by Phrenology. Wonder has reference to some departure from the routine of life, and presupposes a state of things that we term the familiar, or the 'common.' What is common to one man may be wonderful to another. The conjuror is not astonished at his own performances.

There is every reason to believe that an original difference exists between minds, in their susceptibility to the marvellous. It is an emotion never entirely absent from human nature, although exceedingly liable to modification from circumstances. The extension of knowledge does away

with the vulgar marvels of rude ages, but substitutes a new class instead. We have 'wonders of science' in our own day, to add to the wonders of story and incident. The greatest change that comes over the human mind, with reference to this passion, is the change that advancing years bring in their train. Not only does familiarity with the world make marvels fewer, but the human frame is less disposed for the pungent shock and vehement expression, that characterize an outburst of this mode of excitement. Youthful and unexhausted spirits, or great fulness in the emotional region of the mind, would be necessary to sustain the frequent recurrence of the pleasures of wonder. There is, however, a refining process that may be brought to bear upon the subjects of this, as well as of the other strong emotions, rendering the effects more supportable; so that, in fact, wonder never dies.

The passion for the marvellous when excessively developed is shown in the fondness for hearing, seeing, and telling whatever is strange and unaccountable; in the tendency to exaggerate everything that occurs; and in the aversion to all attempts to explain away, or soften down the wonderful circumstances connected with a story. It is an element in superstition, and in the romantic, and helps in a variety of ways to season the dulness of every-day life.

VI. TERROR: TIMIDITY: COURAGE.—The liability to fear is a characteristic of our humanity, and being unequally manifested in individuals, we put down its varieties among the marks of character. We may describe the state of Fear as a tremulous excitement of the whole system, caused chiefly by the apprehension of coming evil. It is a state of intense misery, wasting the energies, subduing the spirit, and impressing the mind with the things that arouse it. Darkness, doubt, uncertainty, strangeness, by opening up possibilities of unknown evil, are also to be reckoned as causes.

We must begin by considering the extreme liability to terror as a *weakness* or defect of the system, and that the power of resisting it is a positive endowment. But an increase in our sensibilities to pleasure and pain, in any of the departments of the mind, would make us more subject to fear. Thus he that suffers severely from cold is very much frightened at the prospect of some severe exposure ; avarice makes a man alarmed by appearances that have no effect upon another man. He that is sensitive to the good or ill opinion of others, is unhinged by a display of awkwardness or incapacity ; the fond parent is easily made alarmed on account of danger to a child. Every one has thus their special occasions and modes of terror, concurring with their strong susceptibilities to good and evil, and, therefore, most numerous in those persons that embark widely in the pursuit of enjoyment, or fail in hardening themselves against 'the ills that flesh is heir to.'

To take now the elements of *resistance* to terrors. The sense of coming harm does not *necessarily* produce the perturbation and misery characteristic of the state of fear. A man may meet evil with perfect composure, even although touching his acutest sensibilities. He is alive to his danger, and put to pain on account of it, but that pain merely inspires efforts to counteract its approach, or endure it when inevitable. Courage does not imply that one has acquired an indifference to pain, or the ideal state of the Stoic ; but only that the state of *fright* does not supervene to increase the misery and scatter the forces of the mind. The ability to withstand this disorganizing condition is a most valuable endowment of the individual, and it is desirable to render some account of the sources that we ought to refer it to.

The state of Fear, physically viewed, may be shown to be a great diversion of the forces of the system, by which power is taken away from the organic functions (digestion

respiration, circulation, &c.), from the muscular and nervous systems, from the emotional mechanism, and transferred to the senses, giving a morbid intensity to all impressions made at the time (*Emotions and the Will*, p. 76). Whatever is seen, heard, touched, smelt, tasted, produces an extreme acuteness of sensation, and the idea survives in the memory with corresponding pertinacity. Now the resistance to this loss of balance may proceed from a surplus of vigour in those various departments, that are thus unduly depressed. A high condition of the organic functions, great spontaneous energy, great emotional fulness, are the adjuncts of courage and the bulwarks of a steadfast mind. There is also a peculiar mode of intellectual force, touched on already, but too important not to reappear in the exposition of the varieties of character, which confronts the past with the present in such a way as to preserve the *steadiness* of the view, as against the exaggerated appearances of the moment. All these influences count on the side of courage; and its peculiar mode will depend on their respective predominance.

The more purely *animal* courage is the result of organic vigour coupled with spontaneous energy, the last being the more important of the two, although the first is not to be set aside entirely. A vigorous tone in all the functions of organic life is greatly in our favour, when liable to fear, as we may know by experiencing what it is to be threatened with danger when in a prostrate condition. The spontaneous energy, although depending in great part upon an endowment of the brain that may rise superior to general weakness, is very greatly affected by the state of the physical functions generally. So much is this the case, that we are justified in coupling the nervous spontaneity and the organic vigour under one head, as representing the Animal courage in opposition to what grows out of the feelings, or the intellect. The constitutions of high spontaneous energy

are by that circumstance disposed to courage, as facts will testify. A very great degree of sensitiveness to actual or possible evils, and an absence of the other adjuncts named, may permit of a considerable display of timidity in persons so gifted, but still the natural activity will have gone a certain way, and things would be much worse without it. As remarked above, energetic men and animals are courageous; their tendency to the active generally leaves them less sensitive, and therefore less vulnerable to the influences of dread.

Next to animal courage, we must place *emotional* courage, or the efficacy of a high emotional temperament in maintaining the *sang froid*. We have seen that it is the essence of this temperament to maintain a cheerful, hilarious, happy tone of mind, and this in spite of a considerable amount of depressing influence. Now fear is a most pointed enemy to that overflow of happy spirits; indeed, properly speaking, fear has not begun to operate, till the whole of the present fund of cheerfulness has been destroyed. The longer this can hold out, the longer is fear withstood. The stage of miserable depression is soonest reached in the weak emotional natures; they are the easiest prey to gloom and despondency and ill omens. A kind of courage, therefore, belongs to the temperament in question, although differing from the animal courage, and deserving more strictly to be characterized as buoyancy, hopefulness, or the sanguine disposition. The animal courage is aggressive and scouts danger, the emotional is hopeful, and slow to entertain the notion that there is any danger.

The *intellectual* courage is of a still higher fibre. It is that firm self-possession that results from being able in the face of disheartening *present* appearances, to retain in the mind the whole of the *past* experience bearing upon the case. A man hears ill tidings, that would cause him serious alarm, but he knows a variety of circumstances

that cast discredit on them, and he abides by the preponderant evidence ; a weaker mind would give way to panic in spite of itself. This power of resisting menacing appearances, by the force of past knowledge, has all the effects that characterize true courage, and yet we cannot ascribe it to either the active or the emotional regions of the constitution. Properly speaking, we must set it down as an intellectual peculiarity, although its consequences are of a moral kind. Without much of spontaneous energy or of emotional exuberance, one may exhibit courage, firmness, endurance, tenacity of purpose, through the intensity of the intellectual grasp never allowing the ends of pursuit to be obliterated or enfeebled by remoteness, or by the power of present solicitations. Although this is a distinct intellectual department, not implied in the acquisition of learning, yet we more often find it where intellect in other things is of a high order, than in the contrary case. Moreover, acquired knowledge is one of the best aids, in quelling many fears that the untutored mind is an easy prey to.

Lastly, courage is susceptible of cultivation. We may contract habits of superiority to fear by being used to danger. The military courage is a notable instance. Self-possession in society, and in addressing public assemblies, has in most instances to be acquired. The original endowments must be of very remarkable order, or the stolidity of the mind to impressions equally remarkable, if a special training is not wanted in these instances.

Courage may thus be discriminated according to its sources, but in whatever phase we find it, we must consider it in a peculiar degree as constituting *strength* of character, and the opposite of it as *weakness*. It is only when proceeding from the negative qualification of insensitiveness to impressions, in which case we have the fool-hardy turn of mind, that it is otherwise than a comfort to the possessor and an object of respect to the beholder.

VII. TENDER EMOTION : AFFECTION.—The compassionate and benevolent sentiments and warm affections have a marked community of nature, and may well be supposed to have a distinct origin in the mind. This common characteristic is, I think, best expressed by the phrases, 'tender emotion,' 'natural tenderness.' The metaphorical term 'the heart,' is likewise a well understood designation for the same class of feelings.

When we look at the emotional nature in its greatest possible contrast with the active, or energetic, we find it characterized by a considerable proportion of the tender element. In fact, tender feeling seems to be the most allied to the state of inaction and repose ; nay, it may subsist in great abundance, in the extreme prostration of the active energies ; this makes it the solace of the sick and the dying. There must still be some foundation for it in the physical frame, or some department of the system that is not enfeebled ; certain secretions and organic processes must be well sustained, although the muscular vigour and the nervous force that keep up the movements are at a low ebb. We are familiar with modes of derangement that affect the capability of being tender-hearted ; the most notable of these perhaps is deranged digestion.

The emotional temperament as a whole, therefore, may be considered as very generally involving the tender, compassionate, and affectionate disposition with all its peculiar outgoings. At any rate, tenderness is a peculiarity distinguishing individuals and marking character. When strongly manifested, it induces a warm, hearty, genial expression, that is not to be confounded with anything else ; there is a strong disposition to compassionate distress, and to relieve suffering ; an aptness for the ties of affection ; a fondness for children, for kindred, and for social relationship ; the indulgence of domestic sorrow ; a strong feeling often for the lower animals ; and a taste for those objects of beauty

that involve the tender sentiment,—the drooping flower, the light and fragile ornament. The feeling also co-operates strongly with sexual love in the relation of the sexes. I adverted in a former page, and shall advert again, to the portion of our nature that is complicated with tender feeling, namely, sympathy.

The appearances put on by a warm-hearted disposition are necessarily modified by the other elements of the character, more particularly by the strength or weakness of will and intellect. When, as is not uncommon, the temperament is destitute of active energy, there is a disposition to console oneself and others by tender outbursts, instead of remedying evils. In the deficiency of intelligence, short-sighted pity, and indiscriminate charity, are the result. An elevated philanthropy demands tender feeling and intellect combined.

A character highly energetic, and yet tender-hearted, like all the rare combinations of opposites, commands our esteem, and finds favour with the novelist. King Robert Bruce arresting the march of his army, rather than leave a pregnant woman to the enemy, is an affecting incident. We are not often to expect such combinations in nature. Great tenderness is still more difficult to reconcile with rational calculation, and prudential forethought. Self-sacrifice on the spur of some clamant distress is what we can most readily count upon, when the characteristic is powerful. There may, however, be found any amount of tortuous and unprincipled behaviour, and even extreme cruelty, in a warm heart.

The low development of this character is expressed by 'coldness' of nature, and is not only compatible with many virtues, but favourable to the higher claims of justice and prudence. If a man loves less, he supplies his deficiency by doing more; supposing always that the peculiarity depends upon his having a small fund of tenderness alto-

gether, and not upon his turning the current wholly upon himself.

Tenderness enters largely into admiration and reverence, and therefore into the religious sentiment, and gives a character to that sentiment, when it happens to be the predominating constituent. The other constituents have already been noticed (p. 114), and will again be referred to.

VIII. SELF-LOVE, SELF-ESTEEM, SELF-COMPLACENCY, EGOTISM, &c.—The modes of self-regard are so various and complicated, that a nice discrimination is requisite to deal with this department of character. I believe that most of what we denominate as self-complacency, self-gratulation, self-esteem, is a mode of the tender emotion turned upon self as the object of regard. Just as we may contract a tender affection for another person, and may feel a delight in the exercise of that affection, and in all the good fortune and partial excellence attaching to the object of it, so we may contract an affection to our own collective self, and be moved with pleasure at contemplating any admirable or agreeable qualities in that self. As just now remarked, a copious emotional nature may be vented, not on other persons, but on one's own individuality; self-pity, or being sorry for oneself, is a genuine characteristic of human nature, and a common mode of directing the tender feeling. The grief of children is mostly a sorrow of this kind.

The love of the approbation of others follows necessarily, from the strong tendency to self-approbation and self-regard. I have formerly indicated the only true antithesis that I can find between Vanity and Pride, which is the contrast between the nature that craves for other men's countenance, approbation, and support, and the nature that dispenses with all that, relying solely or principally in its own. This last is an element of moral strength, to which contributions are made by all the departments of the human mind—Active, Emotional, Intellectual—allying itself with

the attribute of courage above described, and susceptible of a like explanation. As in courage, too, there is a certain amount of sensitiveness that is inimical to the quality; the self-sufficing man is most likely to be one that is little affected by other people's opinion one way or other. The low degrees of tender emotion and sympathy—in other words, of the social attributes—are the most compatible with the Pride that seeks no countenance abroad. Hence the association of such epithets as coldness, isolation, haughtiness, hardness, in contrast to the sociable and sympathizing turn of mind, which is also what courts the support and approval of society.

The vain person would therefore be characterized as equally self-complacent and praise-loving; and this is certainly in accordance with the general observation. The character is both of common occurrence and a frequent subject of description in all literature. In ancient times, the love of glory was an open, avowed, honest sentiment, and not even 'the last infirmity of noble minds;' in the modern world, the tendency has been to frown it down, and drive it into concealment. Every one has the craving in some measure; there are certain persons and certain points whereon we are all susceptible of the grateful offering of praise. The persons are those we especially esteem, and the subjects those that come home to our own feelings; one who is fond of poetry would especially delight in a poet's laurels. The thirst for approbation from any person, and in any matter, is the extreme form of the passion, and a symptom of moral weakness, amounting to the totally dis-solute. This is the character in the shape adapted to the satirist.*

* In appreciating individual character we cannot be too alive to the observation, more than once suggested in the foregoing pages, that these special emotions, to be effective as such, must draw upon an abundant emotional nature. One may be very well disposed to the self-

IX. LOVE OF POWER.—The love of Power is one of the most prominent forms of egotism. The delineation of the sentiment is attended with difficulties, owing to its passing by insensible shades into other passions, as for example, self-complacency on the one side, and the desire of mere worldly abundance for the satisfaction of wants, and of a large yield to our labours, on the other. It is also allied to the love of liberty as against coercion and restraint, and to the sense of security in opposition to fear. In its passionate excesses, this sentiment leads to outrages upon the liberties and happiness of mankind, beyond the effects of any of the other springs of human action.

The essential pleasure of Power is an elation or rebound from some state of weakness, constraint, impotence, insufficiency, dread; and like the reaction from any depressing condition, it is a most grateful and hilarious condition of the mind. The person stands more erect, the features are dilated, the chest is expanded with a more energetic respiration, all the powers of life are increased, and in many instances the outburst of laughter crowns the occasion. As it is necessary to the pleasurable effect that there should be a comparison with some foregone opposite state, it might seem that after all, the delight is merely a make-up for suffering previously endured, and that nothing is gained beyond an even compensation. There are, however, various modes of experiencing the needful contrast. We may have been habitually in a state of restraint or inability, to which we have become so used as to have no positive misery attached to it, and yet, the sudden relief from that state, or the sudden elevation to a higher condi-

complacent sentiment, or to the love of power, and yet not derive much happiness or comfort from their gratification, nor be very much prejudiced on their account, (the influence of emotions on *belief*;) the reason being that there is a deficiency in the mental constitution as respects emotion in general.

tion may yield a gush of satisfaction, and of high spirits. The private soldier perhaps does not feel any depression from his humble rank, and yet, when raised above it, he enjoys the transition in the most lively way. Another mode of experiencing the contrast, which costs us very little, and is still sufficient for the purpose of giving the elation of superior power, is comparison with those in an inferior condition. We first gain a notion of their weakness, and then pass to the sense of our own exaltation. Nothing brings out this contrast so well as a combat where we come off superior, and where we leave upon our opponent palpable marks of humiliation and defeat. Hence the luxury of a victorious contest, and the pleasure of successful warfare. The mere ordering of other persons to do our bidding, to spend themselves on our account, illustrates our own superiority, and brings out the elation of the sentiment of power. Perhaps one of the most grateful of all the responses from another man's weakness is when we put him into a fright. Sydney Smith illustrated the love of power in one of its prevalent forms in human nature at large, when he said of the bishops that what they liked in their clergy was 'a dropping-down-deadness of manner.' Nothing creates a laugh in comedy sooner than seeing some one suddenly panic-stricken.

It is impossible that the human mind should not be susceptible to the pleasurable elation of superior power. But persons may differ very much in the ways of indulging this sentiment, according to the predominance of the other parts of their character. The love of power is not an endowment of positive value, like the love of music, or of geometry, it is a *hydra* whose heads have to be lopped off; and the noblest natures are those that have the fewest remaining. Each person is sensitive in preference to some one mode of exercising power, according to each one's peculiar susceptibilities in other

respects. The rudest natures are most touched by being able to inflict a knock-down blow upon man or beast. This is the Neronic vein. It is not necessary that one should possess great *actual* power in order to have this luxury ; a feeble person beholding the prowess of a giant, may sympathetically enjoy the pleasure of power. Somewhat less objectionable is the delight in holding others in subjection, the position of mastery and command. Such is the pleasure of political, military, magisterial, or judicial power ; and of the head of a family, a school, or industrial establishment. The intensity of this feeling may be judged of by the jealousy manifested when any one encroaches on, or disputes, the position of mastery with the actual holder. When the love of superiority renounces this form and passes into the desire of informing, persuading, pleasing other minds, and of gaining their wills by force of intellect,—by the power of eloquence, the charm of poetry, or the display of good dispositions,—we have probably the best form that it can assume in the best of minds.

Obviously, it is the human sympathies and affections that lay the axe to the necks of the hydra, and it is their growth that operates the transformation of the brute sentiment to the more genial manifestations. When the spectacle of blood and death is sickening to the mind, the display of power after that fashion is no longer grateful ; living subjection is then the preferable mode. A still more developed sympathy takes away the thrill of pleasure that the absolute mastery of other human beings can awaken, and we then prefer to govern them by their own free will, and through the influence of reason, eloquence, or art. A humane civilization induces first a compassion for the ruder forms of pain ; it is later in conferring a sympathy with other men's pleasures ; last, and most difficult of all, is the sympathy with free action, or with people's taking their own pleasures, in their own way. There is a philanthropy

that would impart many benefits, provided only the recipients accept implicitly the giver's notion of what is good for them.

I have spoken previously of the pleasure caused by great *displays* of power, the feeling of the Sublime in Art; and I have stated this to be an essential part of the religious sentiment. There is something paradoxical in the explanation of worship by a reference to the sentiment of power, seeing that to prostrate oneself before a supreme Deity is an act of self-renunciation and a confession of impotence; although due allowance is to be made for the rewards of the submissive worshipper, one of which is to obtain some share in the power that he bows down to; courtiers 'kneel to rise.' Probably there is some other element of the mind that disposes it to part with actual power at the instance of manifested power, so as to pay a willing homage to the last. We can easily understand how the agency of fear should have this effect; but often as this element enters into religion, we cannot but admit that there is a worship of love, in which case the self-renunciation must be the result of the sympathetic tendency of the mind lording it over the natural egotism. Either by fear or by force of sympathy and affection, the religious mind is induced to exchange the sentiment of a small power possessed, the total independence of the individual, for the sentiment of a vast and sublime power manifested in a controlling ruler of the human destiny. The varieties and grades of the Religious emotion are very numerous, and especially those intervening between the extremes of fear and love. That there may be a worship of love, even on the explanation now offered, would be sufficiently proved by the very general charm that has been exercised upon mankind by the possessors of large influence, whether as political power, as property, or as intellectual ascendancy. The persons so placed, while exciting a certain amount of envy and hos-

tility by grating on other men's sense of power, do also draw forth towards themselves a disinterested pleasure and affection from the minds of many, as we may see from the undying interest of the stories of kings and potentates, and from the political submission of the many to the few in every age.

X. IRASCIBILITY.—No characteristic of human nature is more familiar to us than anger or irascibility. Nevertheless, considerable obscurity hangs over its analysis, or ultimate foundations in our mental constitution, and hence the delineation of its varieties is as yet imperfect. The existence of a general pleasure of malevolence has been denied by some, although the sweets of revenge have been celebrated in all times. Still, I think that the greater part of the following observations on the sources of irascibility will be admitted as tolerably fair.

In the first place, we speak of a *quick* temper, which means a rapid and ready response to impressions of every kind. This is essentially the nervous temperament, as before defined. Apart from the great or little development of the three constituents of our mental nature, we may have this general characteristic of quickness of nervous action, and when present, it gives its peculiarity to the irascible, as well as all the other moods, of the mind. Persons of this description are more than usually sensitive and demonstrative, under both pain and pleasure; and, since a high-strung nervous system is very susceptible to deranging influences, painful shocks are apt to be numerous in their case, as human life runs; hence we are not to wonder at their being often of an irascible character. On the same obvious grounds, invalids, feeble and exhausted constitutions, and old age, are more susceptible to anger.

In the next place, an abundance of the Active energy operates in two ways. On the one hand, the force that it confers raises a man above petty irritations; while, on

the other hand, as anger is essentially an active state, a high natural vigour of constitution makes its demonstrations far more formidable. The wrath of a strong man inspires dread.

A large Emotional nature in a healthy frame would also give a superiority to many of the shocks that inflame anger. We have seen that pleasure is the normal condition of this temperament, and that it can swallow up a considerable amount of misery, before the system sinks to the point when grief or anger are sought as means of alleviation. When the forbearance is completely exhausted, grief will be the first resource of the emotional character, as anger would be of the active.

But there are certain of our special emotional characteristics that render us liable to the angry display. These may be summed up in that total, conveniently denominated the *egotism* of the character; in detail, they include our self-complacency, love of power, and collective self-interests generally. The value that a man puts on himself in comparison with all other men and other interests, is the measure of his readiness to take offence, which is the first condition of his being made angry.

To the foregoing considerations, which all have reference to the liability to pains, may be added the power and habit of resisting present impressions. The disposition to give way to any shock or impulse leads to the irascible outburst, if other circumstances point in that direction. There remains, however, the characteristic fact of anger, which determines the genuinely irascible temper, namely, the satisfaction and comfort derived through the infliction of suffering on other sentient beings. It is in individuals specifically alive to this satisfaction that the angry impulses are cherished and indulged. A certain amount of satisfaction is afforded to the human mind in general by a stroke of vengeance, although such satisfaction is apt to be

marred less or more if there be sympathetic dispositions also; but in some instances the pleasure of revenge rises to a positive and powerful gratification, and in consequence the wrathful desire is liable to extraordinary persistence. I am disposed to think that this singular phenomenon of our deriving pleasure from the infliction of pain is explicable in part by the pleasure of power, which is pandered to by the discomfiture and humiliation of another being; in which case, those that enjoy most keenly the delights of power, as in sports and victorious contests, would be most disposed to find comfort for a wrong received in retaliating upon the author of the wrong. There is a certain satisfaction, too, in disabling an active opponent, and so ridding ourselves of an incubus of fear, the relief from which is always grateful. It has been supposed, farther, that there is a certain voluptuous gratification in seeing and causing suffering when pity is annulled in the breast; now the sense of an injury has the effect of drying up all the sources of pity and consideration, of proclaiming the person, as it were, an outlaw, and therefore a fair victim for all the passions that cruelty can minister to. Our experience of human beings and past history give us plenty of examples of this extreme pleasure of malignity, which only seeks in real or supposed injury a pretext for its indulgence. In more moderate degrees, we find it rendering persons especially hard to appease when they fancy themselves insulted; they are reluctant to be baulked of a dear revenge.

If we have reference to the various elements above detailed, we shall be able to understand and explain the contributing causes of the angry temperament in almost any combination that occurs. There may be quickness of nerve, susceptibility to physical irritation, and even a high sense of one's own value, without the hearty delight in malignity; but that delight will undoubtedly tend to

manifest itself in the proportion that the egotistic sum total exceeds the tender and sympathetic disposition. As regards both the readiness to take offence and the finding of satisfaction in humiliating the offender, the sympathy with other men's feelings and interests is the counteractive of angry ebullitions.

XI. EMOTION OF PURSUIT—PLOT-INTEREST.—Among the notable omissions of Phrenology I mentioned the peculiar feeling of suspense in watching some end about to be reached. This is one of the well-known pleasures connected with sports and games, story and romance. Anything in the way to a termination as yet unknown arrests and fixes the gaze, and we suspend all other active operations till the consummation is achieved. A horse-race is a familiar example. Now it does not appear that all minds are equally susceptible on this point. In some, the interest of a story, a game, or a race, is an overpowering passion ; others take the excitement in a languid fashion. The young are more attracted in this way than the old ; which is doubtless explicable on the mere difference in animal spirits, or in the physical basis of emotion. Possibly there may be no other cause of difference in any case than the unequal exuberance of the emotional nature. If so, the susceptibility to plot-interest would be a good mark of that kind of temperament. There are many other reasons why a novel reader should have a surplus of the material of emotion ; although it does not follow that the distaste for novels should imply an absence of this characteristic, seeing that it may assume many other forms.

XII. SYMPATHY.—So much reference has been made to this principle of the mind, that we are bound to give a particular account of its workings. Hardly any characteristic that can be named is of more importance in the discrimination of the moral qualities of men. If it be true, as I have maintained, that conscience itself reposes largely

upon this part of our nature, we gain much when we have secured a sympathizing disposition. We find some men open at all points to the feelings, and wants, and pleasures of their fellow-men ; we find others as much distinguished for obtuseness and insensibility ; and there is a middle mode more frequent than either, the condition of partial or select sympathy. The ultimate foundations of this peculiarity are somewhat subtle and obscure ; and a question arises whether it be a truly emotional quality in the strict sense of the word. There is a close alliance, indicated in our own and other languages, between it and the tender emotion : 'fellow-feeling,' 'compassion,' 'sympathy,' being all applied to express the effusions of the heart, or tender feeling. Yet there is an effect far beyond this, and not proceeding from the same source, when we enter into the opinions, sentiments, and points of view of persons differently constituted from ourselves, as when we attempt to conceive and to appreciate the mental condition of a Hindoo, or of an ancient Greek. Mere tender affection gives but a limited interest in human beings ; the circle of its regards is confined to certain of our kindred and associates, or if it extend to remote individuals, it is because they happen to have something about them that makes us look upon them as of our kin. But we may sympathize with strangers and with people that we have no liking for, as criminals, for whom Howard gave up his life.

The meaning of sympathy being the making other men's feelings our own, and acting upon an adopted interest as if it were one begotten purely of self, it is obvious that the first consideration is how are we able to get at what other minds feel ? and the second, why should this occupy us in preference to our own proper motives ? How do I come to feel with a neighbour who has lost a faithful dog, the object of his affections ; and why does this feeling possess me as a motive to the exclusion for the time of my

own affairs? The one question relates to the interpretation of other minds, the other relates to the motive force of a feeling induced upon us by this interpretation. A very little reflection will show that intellectual processes are involved here, although consequences of a moral kind are the result. Nor is this the only instance of the sort that has occurred in the course of the present treatise. We have seen, with regard to the moral qualities of Firmness and Courage, that certain forms of these cannot be explained either by the active or by the emotional qualities of the mind, and that somehow or other they involve the intelligence. And if so, it would not serve the purpose of clear exposition to enter upon the consideration of peculiarities of so much subtlety, except in connexion with the account of the whole region where they take their rise. We shall, therefore, postpone for a little the discussion of the sympathetic process, and the varieties of character assumed by it, and proceed now to the only subject that remains to be handled under the present head, namely, the Artistic, or as they are sometimes called, *Æsthetic Emotions*.

XIII. FINE ART EMOTIONS.—I am unable to regard these otherwise than as a certain select class of our sensations and special emotions. I cannot recognise in the sentiment of the beautiful a feeling distinct and characteristic. Beauty is the name for an emotional state that may be produced by many causes; and the only real difficulty is, as Coleridge suggested, to draw the line between it and the Agreeable, or to give the distinguishing marks of the species Beautiful, so as to separate it from the other species of the genus Pleasurable. Why is a landscape beautiful and a feast simply agreeable? I have elsewhere discussed this question (*Emotions and the Will*, p. 247), and must here assume the results without giving the reasons. I consider that the emotions touched by works of Fine Art, are principally the pleasurable sensations of the two higher senses,

Hearing and Sight; certain of the sensations of the inferior senses *idealized*, or given in idea and not in reality; the emotions of Wonder, Love, Fear, Plot-interest, and with some qualifications the sentiment of Power; a class of pleasures growing out of the *harmonious* concurrence of different sensations and feelings,—harmonies of sound, sight, &c.; and lastly, associations of agreeable effects, as the satisfaction that Order gives from our knowing what pains are avoided, and desirable ends facilitated through that instrumentality. It is the triumph of a successful artist to awaken as many of these emotions as he is able, instead of applying himself to an imaginary unity of effect, termed the Beautiful. In an acted play of Shakspeare, a poem of Goethe, or a romance of Scott, there is an aggregation of many threads of strong human interest. An artistic mind can only be defined as one susceptible in an eminent degree to a very considerable number of the emotions now enumerated. No one is susceptible to all equally. To Johnson and Scott, music was simply noise.

It is only in the fact of *harmony*, or concord, that we seem to have an effect peculiar to Art, and not simply one of the ordinary sensations, or emotions. But here, too, it may be doubted if there be anything special. We are accustomed to refer the sense of music to the ear solely, and not to that in part, and a deeper sensibility in part. So with the eye. In the susceptibility to colour we cannot help including the pleasure of harmonized colours. It would be impracticable to draw a line between the more outward and the inward feelings of the same sense. And even when we harmonize the effects of different senses, as Music and Spectacle, all that would appear necessary is an acute sensibility to the separate effects; with this would come, as a matter of course, the sense of their agreement or disagreement; at least, we have no evidence to show that there is a distinct sense for this express purpose.

There is, however, one remarkable effect arising, not out of the harmony of different impressions, but often out of a mode of discord, which is highly pleasurable, and much resorted to as a seasoning of the dulness of life. I mean the Ludicrous. Here we have a strong emotional susceptibility, in which individuals are found to differ to a remarkable degree. Unfortunately for the limits of this work, the roots of the laughable, the witty, and the humorous lie deep, and entwine themselves with many of our primary susceptibilities. The very little progress hitherto made towards the analysis of this phase of our nature, is a proof of an unusual amount of complication. I am of opinion that we have here still a branch of the pleasurable sentiment of power, although often in a shape so transformed and disguised, that a subtle explanation is called for to disclose it—like the transformations of words that leave no mark of the primary root, till the philologist supplies the links of transition. If we take the chuckle of a successful combatant, the explosive mirth of the child who has burst a barrier or gained an imaginary triumph, the laugh of derision and ridicule—hardly any one will dispute the presence of the sentiment of power as the essential feature of the case. In those witticisms and jokes that take down some one's importance—a very large proportion of the whole class—the reflected pleasure of power is little less apparent than in the foregoing. Who could construct a comedy at the expense of no one's dignity or importance? How seldom should we be able to raise a laugh under the stringent condition of not depreciating any living being? True, we are accustomed to hear of innocent mirth, inoffensive raillery, and stingless gibes; moreover, the notion of 'humour' is something so genial and loving, that it draws human beings together instead of alienating them by humiliation and contempt. In these cases the transformation of the original sentiment must be

so great as almost to reverse its whole character. Still, however, I believe a satisfactory explanation may be afforded. In those harmless jests, either the person aimed at is absent and safe from delation—a very frequent case—or the hit is made at some point of character that one does not make a serious stand upon ; a prime minister is not offended by the laugh at his awkwardness in an amateur attempt at mowing a lawn. Perhaps the party aimed at is quite capable of a retort that repays the damage ; while among the excellent of the earth, the benefactors of the race, are a class that freely give themselves up to the laugh, immolating their own dignity on the altar of the common delight. Moreover, in the highest strokes of so-called Wit, there is such a combination of intellectual ingenuity, luxuriant fancy, rhetorical polish, or far-fetched allusion, as to clothe the pungent shaft with a healing ointment, as when we pardon the thorn for the rose. The wit of Sydney Smith must often have charmed far more than punished its victims, but still wit needs a victim.

If this account of the matter be near the truth, we are able to explain the characteristic of love of fun and jest, in opposition to the serious and grave demeanour—the man that cannot ‘understand a joke.’ As regards the propensity to scorn, and derision, and ridicule, there is nothing wanted in explanation but to refer to the hydra, one of whose heads this is, and to any reason that can be given in the individual case why the decapitating axe had never been applied. But the sentiment of mirthfulness and humour supposes one who enjoys, as is natural, the falls and discomfiture of others in matters that do not affect life, limb, or estate, and is willing, for the sake of that enjoyment, to bear his own share of the expense, and take his turn in the pillory. He that is so enamoured of his own power and consequence as to feel acutely everything that derogates from it in any point, dares not indulge in the luxury of sporting with the

dignity of others, unless surrounded by very peculiar privilege. His own glass windows are too constantly in his view. He makes too much of his own position to play with such a subject. An earnest Christian will not jest at another religion, however little he may esteem it. There is a well recognised contrast between the serious, earnest, and high-minded nature, and the disposition to levity. We may be ready to indulge in sarcasm at our neighbours, but unless we are prepared to submit with a good grace to the lash when it comes round to ourselves, we have not the genuine comic temper. Falstaff could be anybody's butt, and so he was not afraid to let fly his own arrows. Sydney Smith is said to have declared that he was disqualified for being a bishop. We should be prepared for reciprocity if we would deal in this weapon; and if we cannot afford to be taken down when our day comes round, we must not enter on the career of the wit.

CHAPTER X.

INTELLECT IN GENERAL.

HAVING glanced at the two divisions of the mind named Action and Emotion, the third, Intellect, now claims attention. Although, to do full justice to this great subject, we must make a variety of subdivisions, as in the case of the Emotions, yet something may be said of it in the total, otherwise we could not consider it as a well-marked and characteristic region of the mind.

The distinction between Emotion and Intelligence is a broad one ; although, like other great natural distinctions, such as that of Plants and Animals, not such as to preclude transition instances that may fall under either, or neither. Nature abhors a break. We are not to undervalue broad distinctions because we may light upon a point where we cannot say which side we are on. The contrast of solid and liquid is not to be explained away, in consequence of the ambiguous middle state of the viscous glacier.

I conceive the foremost and most fundamental mark of Intelligence is Discrimination. To be struck by the difference of two successive states of mind is to be intellectually alive ; and one man conscious of a difference not recognised by another, is to that extent the more intellectual of the two. He that can discern the greatest variety of shades of colour, or sound, or odour, or taste, is most gifted with intelligence in those departments ; he that is most powerfully excited painfully or pleasurably by a taste, or an odour, is the most emotional. Colour blindness is suspension of intellect ; colour indifference is suspension of

emotion. An ordinary person going through an hospital would not discriminate perhaps above half a dozen varieties of pulse; a physician can note many more; this is intelligence as quickened by cultivation. The very same impression on the senses may be taken emotionally or intellectually; a glass of wine drunk at dinner gives a stimulus purely emotional; the sip in the mouth of the wine-taster gives only the shock of discrimination.

Next to Discrimination is the sense of Agreement; which, however, ought really to be called a second difference, a new breach of continuity of impression. The first departure from use and wont gives the surprise that we call difference; having made up our minds as it were to the new state of things, it is a second surprise to find in it something corresponding to the old. Passing from a plantation to a nursery-garden, we experience a certain shock in the transition from stately trees to beds of diminutive plants; this shock, however, is hardly recovered from, and we have barely come to adapt the mind to the new state, than we are awakened a second time by the likeness of these small specimens of vegetation to the tall trees that we had just been studying. It is not simple agreement, therefore, that stirs us; for the continuity of one impression, as of a never-ceasing hum, produces deadness of sensation; but like in the midst of unlike,—harking back to agreement, after having entered on the road of difference. But all our original impressions, whether considered as states of our own minds, or as representing an outer world, are either Differences, or Coincidences; these are the basis and essence of our intelligence; an increasing recognition of these is an increasing range of intellect.

In every one of the senses there are sensations that cause principally pain or pleasure; sweet and bitter tastes and odours, soft or smart touches, mellow or harsh sounds, unmitigated glare or mingled light and shade. There are

also sensations that affect us but little as emotion ; they make us conscious, or mentally alive, but we can hardly say that they give us either pleasure or pain. A very slight saline taste in a water is noticed by us,—we discriminate between it and the pure water that we have been accustomed to,—but as pleasure or pain the effect is nothing ; the transition from touching a piece of wood to touching a piece of polished marble gives an impression, but an exceedingly indifferent one as regards mental gratification. So of the infinity of sounds that fall on the ear, some please us, others pain us, but the great mass are of a neutral quality ; but it is these neutral sounds that have *meanings* beyond themselves. Articulate speech gives intrinsically little in the way of a delightful titillation of the ear, but an immense scope for the discriminating intelligence. Equally great is the range of our sensations of sight in the intrinsically pleasureless and painless, which, however, by the recognition of variety and individuality, gives endless employment to the peculiar energy that we call intellect. Hearing and sight are intellectual senses, by pre-eminence, because so many of their sensations are of this character ; but, if we had a sense that never gave us any pleasure or pain at all, but merely furnished a variety of distinguishable impressions, that would be the real and only intellectual sense. We have sensibilities that give us much pleasure or the opposite, with small discrimination, and these are the emotional senses ; the sense of digestion is a good example ; although a perfectly pure emotional sensibility does not exist any more than the other.

On this fundamental property of the Intellect we can mark out a great many varieties of character. To be more than ordinarily discriminative in one of the five senses, and especially in Touch, Hearing, and Sight, is to be distinguished in at least one important walk of human capability. But to take a complete view of this matter, we should begin

with the feelings of *Movement*. It has been already remarked, that individuals may vary greatly in respect of delicate appreciation of degrees of expended force, and that on this hangs the aptitude for mechanical manipulation of all kinds. In handicraft, there must be a nice sense of pressure exerted by the hands and arms, and of resistance encountered. One person holding in his hand a pound weight, and not sensible of any difference when an ounce is added, may be compared with another who is sensible of that, or of a less, addition. The 'Constructiveness' and 'Weight' of Phrenology have reference to this fact. Within the compass of the Muscular System we may have several departments, or muscular groups. The arms and Hands, to whose movements the lower limbs, trunk and head, also join themselves, are the instrumentality of manual arts and exercises. Some important cerebral centre doubtless contributes to the discriminative acuteness of these parts, although we are not so fortunate as to detect it. Another region well marked and circumscribed is the Voice. Here, too, there is in some constitutions a delicate sense of graduated effort, the foundation of vocal execution in singing and speaking, corresponding to which we must imagine a distinct portion of the brain, whose size and energy of function constitute the material fact. In a change noted by one man as only a single gradation, another may interpolate four or five distinct grades, the consequences of which are prodigious, when one is cultivating the arts of speech or vocal music.

In alliance with the voice in speaking are the Tongue and the Lips,—organs remarkable for mobility and compass, and on which individuals may be very differently endowed in respect of discrimination of degrees of movement.

No less, perhaps even still more, important is the group of muscles concerned in moving the Eyes, which are in the average of men very sensitive; when these are more dis-

criminative than usual, there is a great increase in the power of appreciating size, distance, and form ; the importance of which can hardly be over-estimated. For, in the first place, we have by this means an essential aid to handicraft manipulation ; in many, if not most, of the exercises of the hand some visible effect is to be produced, or some modification of the sizes, distances, and forms of bodies or masses of matter. The carpenter joins pieces of timber into defined forms, the tailor must make a coat to produce a given appearance ; the marksman's or cricketer's eye is at least as important as his hand. But besides this, the discrimination of natural objects in the study of the world, of artificial marks and symbols, such as written language, of human character and expression,—must essentially depend upon the perception of minute differences of size as estimated by the eye. The only other thing that can enter into the case is colour. The endowment of the centres that send their three pairs of nerves to the muscles of the eye is thus a matter of no small consequence to the character, as respects all that we mean by good OBSERVATION. To observe is, in the first instance, to discriminate.

In speaking of this last department of muscular sensibility, I may seem to have anticipated the consideration of the sense of sight. Not more so, however, than the allusion to the muscles of the hand and arm trenched upon the sense of Touch ; the fact being that those two senses are notable for being compounds of active energy, put forth and estimated, with sensation proper, passively received and estimated. We are not sure that the two elements of the active and the passive rise and fall together in the individual : indeed, it seems more probable that they do not. The muscular sensibility of the eye may be good, when the optical is indifferent, and conversely. But now as to the SENSES proper. On *Taste and Smell* it is needless to dilate. Their discriminative power varies in indi-

viduals, and a high degree of it is useful in several of the arts. The powerful smelling organ of the pointer dog determines his value. In Touch the proper discriminative sensibility is difficult to separate from the muscular; we may say that it relates principally to the degrees of *roughness* and *smoothness*. Hardness and softness almost always involve *resistance*, which calls forth the active element of the sense. Weber, in a set of admirable experiments, (from which we see, in opposition to all the common notions, that the human mind may be a subject of experimental inquiry,) showed that the proper tactile discrimination varied in different parts of the body, and could be estimated with numerical exactness, by the interval at which the two points of a compass ceased to be felt as double. In the point of the finger this interval is a very small fraction of an inch, on the top of the tongue still less, and these are the parts where the discrimination is most delicate. In the back, an interval of three inches is required to give a double sensation. Now it would be quite easy to apply Weber's method to the comparison of one person with another in this respect. A superior tactile discrimination is probably of value in such a matter as testing the qualities of the textile fabrics; but in most ways of using the hand as an instrument of touch, the muscular parts co-operate with the proper sensibility of the skin.

The discriminative aptitudes of the Ear are various and important. The Musical ear has been repeatedly alluded to, the essence of which is perception of delicate differences of pitch. There may be considerable enjoyment of music without that delicacy of ear requisite in a good performer. In opposition to Combe, I should be disposed to place enjoyment, or the emotional susceptibility, as the *lower* manifestation of a faculty, and perception or discrimination the *higher*. Besides the musical ear, there is the ear for Cadence, elocution, or the melody of speech, presupposed

in every good elocutionist. Still more important is the ear for Articulate sounds ; when this is good we readily catch up articulate utterance, and have a facility in learning language by the ear, as well as in exact pronunciation.

Enough has been formerly said on the discrimination of Colour by the eye, necessary to a colour-artist, and entering into the discrimination of places, persons, and things seen. Recent observations have shown that defectiveness in this peculiarity, amounting to the confusion of the primary colours, is not uncommon.

So much for the primary perceptions of the senses. Cultivation is known to increase this aptitude for discrimination in a very important degree. An ear for music, moderately good by nature, may become much better by constant practice. But it is one good test of the intellectual force of the mind in any department, to note the power of perceiving differences. Herein will the educated always differ from the uneducated, no less than in the amount of acquired knowledge. A lawyer will see a wide distinction in two cases that to another person will appear identical ; and so also with agreements. A banker has a sense of the difference between a forged Bank of England note and a good one, where another eye is not affected at all. Thus in every occupation, and every branch of culture, the creation of new sensibilities to difference is an essential part of the acquirement.

The next great mental fact implied in Intellect, and separating it from Emotion, is the fact of the continuance or persistence of impressions when the agent has ceased to operate, and the recovery of them afterwards by mental causes alone. A sound falling on the ear leads to our having a sensation, and this sensation, or mental state, may outlast the sound, and may be afterwards revived without the renewal of the sound. This is the *Retentive*, or plastic, property of the mind, at the basis of all acquisition, memory, habit ;

or all those changes that may be operated on men and animals by experience and education. It is contrasted with instinct, or with the powers that we have by nature.

Retentiveness presupposes Discrimination. We cannot remember a tune if all notes are equal to our ear. But how far discrimination implies retentiveness is a nice question, on which great consequences turn, like the small ridge that separates the sources of two great rivers. In fact, it is at this point that Phrenology and Psychology part company for good. If we are retentive of a class of impressions—Tastes, Touches, Sounds—exactly in proportion to the delicacy of our discrimination, then the two intellectual qualities need never be kept distinct as facts of character, for the existence of the one is proof of the other. As without discrimination we cannot be said to possess the *sense* of anything, sensation must mean this power at least. If I am said to have the sense of colour, I must be understood as capable of recognising the differences of the different colours and shades. Now if it be but a part of the same power, good as that is good, and weak as that is weak, that I have the *recollection* of colours, that I can think of them without seeing them; then memory too is but a fact of Sensation; and, in short, Intellect would appear to be swallowed up in Sense. Such is the view of Phrenology. Undoubtedly the power of retention, or memory, differs greatly in individuals; and it is also true that a high endowment in any class of perceptions, as in colour, is generally shown, both in acute sense of difference, and in good recollection; but it does not follow that the two go exactly together, or that we are to consider the power of retention to be merely the attribute of the local centre of the sense. There are in all three aptitudes connected with every sense, the Emotional, or the amount of pleasure, pain, and excitement, the Discriminative, and the Retentive. Phrenology presumes that all three go strictly together.

Experience is in favour of their going together to a certain extent, but not so closely as to entitle us to offer one as evidence of the others. A good eye for Form involves the enjoyment of forms, the discrimination of them, and the memory of them; but not all equally. We are, I think, bound to keep the different facts separate if we would analyse character justly. That the emotional and the intellectual do not accompany each other in strict proportion I hold as good as certain; and for the present, I am disposed to treat the two great intellectual properties as not uniformly developed. It is still a question whether there be not a *general* quality of retentiveness in each individual mind, affecting all its perceptions, whether more or less acutely discriminated. We are bound to suppose this distinctness of the plastic property as a possible thing, until evidence to the contrary be obtained. And even if it could be shown to rise and fall with the other, we should still have to look on it as a separate fact, seeing that the enormous structure of our acquired knowledge and aptitudes reposes on it.

It is possible then that one mind may have the quality of Retentiveness great over *all* its impressions. Whatever strikes such a mind vibrates longer, becomes sooner coherent and self-sustaining, than in other minds. The natural result is, that acquisition in every department will proceed more rapidly than in the mass of men. Eminence as a universal *learner*, is the criterion of a retentive quality pervading the mind, and not restricted to local organs. Now experience would appear to confirm the view that would treat retentiveness as general. There are many instances of persons that seem to be able to acquire everything that they apply themselves to—mechanical aptitude, languages, sciences, business, even fine art execution; and it is the more natural mode of describing these persons, to assume a general plastic property. The Phrenologists would assign to such

a large and equal development of all the Perceptive Faculties—Tune, Time, Colour, Number, &c.—and thus avoid the recognition of the general property. In the mean time, however, I prefer the other view, as better calculated to keep a hold of all the known facts, and because the subject of acquisition is thereby put into its due prominence, as a department of the human mind.

Thus among varieties of the intellectual character, we are to place these minds of *large pervailing retentiveness*, which renders them apt scholars for things generally. No one that has had opportunities of observing the young in schools and colleges would deny the propriety of this allocation. The facility of acquiring, with the natural concomitant of love of study, is a distinction of some minds, and, although it is scarcely possible to meet a student who can learn all subjects with equal facility, yet we do meet those that are better described by the general power of acquiring, than by ability in any special department. Sometimes special ability is accompanied with the general power; living mathematicians of eminence could be named remarkable for acquisitions in language, and for good memory generally, although mathematics and languages are two extreme phases of the intellect, which can hardly concur except on the basis of a high plastic power throughout the whole brain. We cannot well explain the first-rate intellects of the race without this assumption. Johnson's notion of genius—large general powers applied in some one direction—is insufficient to explain all genius, but defines one class of the superior intellects, or at all events describes one fact connected with intellectual superiority. We could not have such minds as Aristotle, Newton, Hobbes, or Leibnitz, without this quality; and many other men, not, however, the geniuses of the race, are fairly described by a reference to it alone.

If we admit a general retentiveness, we must explain

special differences on considerations of purely local development ; we must say, that a man's being a better musician than colourist, is owing to the ear for music being more highly endowed than the eye for colour. Here the phrenological plan seems the available one, and we may, for all practical purposes, consider that the special retentiveness follows the discriminative power in the particular region—that is to say, each person will be most retentive where he is most discriminative. We cannot be absolutely sure of this, but our knowledge of character is not sufficiently advanced to admit of a more refined statement. The large general powers, then, that we have spoken of above, are to be considered as specialized by local endowments, and as showing results proportioned to local superiority. Thus, if the muscular movements are naturally of a high order of endowment, as exhibited by the fact of delicate discrimination of exerted force, there will also be a good memory for muscular perceptions—Resistance, Weight, Pressure, &c. If the nervous centre of the muscles of voice is of a high order, and if the general plasticity is good, there will be a ready retentiveness for vocal effects in singing and speaking. Great discrimination of Form in a powerful brain will be followed by a great memory for forms. We thus combine the assumption of general power, put forward by Johnson singly, with the assumption of special and local development, put forward by phrenology singly.

There remains now on the point of Retentiveness one other circumstance, namely, the important fact that this is favoured by the Emotions. We know that strong feeling aroused by anything causes that thing to take a deep hold of the memory. Pleasure and pain are equally efficacious in stamping the impressions of the moment into durable forms. Great fascination with a scene arrests the gaze at

the time, and makes it a favourite image to revert to in after times, and so concurs with the natural retentiveness in giving it an enduring place in the mind. A poem that charms us is remembered when indifferent compositions are forgotten. We may, therefore, excel in a study by the force of strong interest alone, the natural power apart from this being by no means remarkable. Men sometimes enter a pursuit because they feel they have an aptitude for it, in the special retentiveness of the intellect; in other instances, one is carried away by an enthusiastic liking. The most notable successes are a combination of both. Nelson had both an intellect for the details of navigation and ships, which alone would have made him great as a sailor, and an enthusiasm for the sea that would have quickened the perceptions of a commoner mind. It is a very usual thing to find taste without power, and we also meet with power without any enthusiasm, although the mere possession of power is apt to give a certain pleasure in the exercise. One may have a great love of mathematics, and yet be a poor mathematician, although without the love, matters would be still worse. On the other hand, the disinterested retentiveness for mathematical notions may be very great, disposing one to follow out the study from the mere circumstance of excelling in it; but what excites the highest enthusiasm in the same mind may be not Euclid or the Calculus, but Poetry, or the Stage. All observation is decided in favour of the separation of the emotional susceptibility of a sense, or its power to give pleasure, from the proper intellectual susceptibility which confers discrimination and memory; the one is not to be presumed as a matter of course from the other. Not that they do not in many cases go together, only they are far from being proportionally manifested, and are occasionally in an almost inverse relation. Illustrations of this were also

given in the detailed criticism of Phrenology, and with the above remarks I will now leave the subject.*

That great fact of the mind, so unaccountably slurred over by Phrenology, which has long been recognised under the phrase the Association of Ideas, points to the particular mode of retentiveness where different impressions concurring in the mind, adhere and make up a whole, of which one part shall afterwards recal the rest. The acquisition of language affords familiar examples. A name, which spoken is a sound on the ear—the sun—concurs with the visible impression of the object, and the two are said to

* We seem to have fallen into an inconsistency, not to say a paradox, in maintaining formerly that Emotion and Intellect tended, the one to exclude the other, and now that the one assists the other. The explanation is easy enough. Just as we might maintain that a standing army is both loss and gain, so the excitement of the feelings to stimulate the intellect, is in one view a loss, inasmuch as there is a large expenditure of force in keeping up the flame, and in another view an unquestionable gain, seeing that in point of fact the impressions received at the time strike deeper. It would be better on the whole if the requisite effect could be produced without stirring up excitement; for if we must have excitement, the cost must be paid in a reduction of the general force of the mind. Hence the *disinterested* retentiveness is what economizes intellectual power, and issues in the maximum of acquisition. The discrimination and the retention practised in cool blood draw least upon the powers of the brain; they can be longer continued without exhaustion, and consequently can do most towards stirring up knowledge and acquirement. It is impossible, and not desirable, to exclude emotion from the life of the intellectual man, but the less of it there is, the more will pure intellect flourish. Of all stimulants to attention and memory the worst is Fear; the desired end may be secured in this way, but the cost is frightful. Consequently fear may be very useful for an occasional task, for making the sentinel keep a special look-out at some one point; but a life of study cannot be induced by this means. The child taught by a mixture of fear and reward may take in a little, but will never make a scholar. The best condition of all is the natural and disinterested retentiveness; next to that is one's own feelings of interest in the subject. Of a still inferior grade is the artificial stimulus of rewards: but worst of all for the happiness of the subject, and for the amount of acquisition possible to be reaped, is pain so applied as to work fear.

become associated, or to cohere; and after a time, we are able, in the view of the sun, to pronounce the name, and on hearing the name to revive an idea of the thing. The expansion of this great law—sometimes named the Law of Contiguity—necessarily occupies a wide space in the science of mind. In the point of view of the explanation of character, this expansive illustration is less necessary. We must recognise the fact, and indicate the ultimate foundation of it in the mental system, which foundation can be nothing but the twofold nature of the retentive property as above described. A good memory for language can repose only upon those two circumstances—the *general* plastic power of the brain and mind, and the *special* susceptibility to the impressions that names make on the ear, eye, or vocal organs, coupled also with the impressions of the corresponding things; for we can remember best the names of the objects that we take the best hold of—a botanist has a better memory for plants than he would have for persons. The only additional complication, therefore, that the association of ideas introduces into the explanation of individual character, is the consideration of the impressibility of the mind to the several things associated, when they are of different kinds. In learning a foreign language, the association is of one material, names with names, and is on the same footing as the memory of a consecutive speech in our own language; this is the verbal memory in its purest form, and merely combines the general power of the brain with the susceptibility to words. When we associate different kinds, as names with visible objects, the two local susceptibilities—the ear and the sight—must be both taken into the account. Even in sight alone, we have seen that there is a compound susceptibility—form and colour—which may be unequally developed in the one mind, rendering a separate estimate necessary. The fact of association is a fact of the retention of impressions,

which I prefer to consider as a property of the entire brain, modified only by the unequal local susceptibility. We may be often at a loss to determine whether any special acquirement reposes principally on the general or on the local—verbal memory, for instance—and the only criterion for deciding the point is what has been above stated, namely, that when it is the retentiveness generally, it will be seen in a great many things; if it be the local development, the test will be the very great discrimination shown in that locality. If the musical ear be very discriminative, the remembrance of music would not of itself imply great general retentiveness.

We must now pass to another grand property of the Intellect, which is in some respects contrasted with what we have now been discussing, although so far agreeing with it as to be included under the common names, Association of Ideas, mental Reproduction, &c. I mean the power of some present thing to recal to the view something past that may never have accompanied it before, by the force of Resemblance. When I listen to a speaker, and am reminded of another whom I never saw in the company of the present, or never heard coupled with him in any way, merely because of something in the manner or style that is the same in both, I am acted on by this power of like attracting like, which is spoken of as the Law, or associating principle, of Similarity. This force is indispensable to our mental range, and may be of many degrees of efficiency. The measure of it is the ability to recal like to like, in spite of accompaniments of diversity. When the likeness is faint, and the difference great, the majority of minds fail to be struck; the old does not flash upon the new in those circumstances. An individual mind here and there, however, may be so constituted as to make the identifying embrace even at so great odds; and to all such must be assigned the palm of a higher force in the property

of Similarity. A retentive mind is measured by the rapidity shown in making acquisitions—by the fewness of the repetitions, stimulants not being employed, that are requisite to cement a firm connexion between the two steps of an acquisition, or between a number of distinct impressions. The *Identifying* mind, on the other hand, is proved by the number of occasions when an identity too faint or too disguised to be apprehended by men in general, makes itself felt by a stroke of recal.

It has been conceded above, that the question as to whether discrimination and retentiveness rise and fall together, or are substantially one power of the intellect, is open to dispute. There is, and can be, no such dispute with reference to Contiguous association, or Retentiveness proper, and Similarity, or the Identifying force. It is most certain that these do not rise and fall together. We can produce the most manifest instances of high retentiveness, with very feeble power of similarity, and the highest power of similarity without a great development of the other. The first case is perhaps the best established, representing as it does the instances of great and universal acquisition, with the total absence of originality or invention. It can be shown by a full array of instances that great original genius implies, as its most essential condition, this power of like recalling like, through remoteness of distance and the deepest disguises of unlike accompaniments (*Senses and the Intellect*, Book ii. chap. ii.) Some illustrations of this will be produced in the present exposition, when the subject of Genius is brought forward. Unless we assume inequality in the power of hunting out resemblances, there is no possible explanation of the contrast of genius and talent, the faculty of original combination, and the ability to execute well what other people have done already. It takes considerable talent to command a fleet according to the approved traditions, or to be a Chief Justice, but this

is, after all, but to learn well a part that has often been played. A man may speak and write to admirable purpose, by study of the many good examples that have gone before him ; it needs only application and good retentiveness, both general and local, in order to succeed. This is a very different thing from composing the language of Shakspeare. To account for the extraordinary fetches, the new combinations, there presented, we must have recourse to some new intellectual force, without, however, excluding the others.

As in the case of Retentiveness, our safest assumption with respect to Similarity is to suppose a general power specific to the individual, modified by the local susceptibilities. The identifying stroke will, as a matter of necessity, be most remarkable in whatever class of things has most impressed the mind. In one man we shall remark it operating only among scientific conceptions ; in another, among practical devices ; in a third, among the conceptions or language of poetry. There is presupposed a certain basis of acquisition ; and the things that are most familiar, in consequence of one's peculiar susceptibilities or studies, are the things that will be most readily brought up by the magnetism of resemblance. It is only a zoologist that can strike out new classes among animal species, although the acquisitions may be unattended with the originality ; every Naturalist is not Cuvier. The Shakspearian fetches of similarity detected among things far asunder, are principally within the limits of the poetical class ; they show that the general power was determined in its operation by the special impressibility of the mind. We have no new similes or metaphors from Newton or Watt, and yet both must have possessed the identifying faculty in a first-rate degree.

There are thus three great properties of the INTELLECT—Discrimination, Retentiveness, and the Identifying force.

A fourth has been named as also fundamental—Contrast ; but this can easily be shown to be a result of the others. There would be no propriety in distinguishing any person by the discovery of Contrasts, for that could only be another way of expressing the attributes of Discrimination and Similarity, with perhaps a fondness for the *surprises* that Contrast gives rise to.

These being the essentials of pure Intelligence in its own walk, it is interesting to trace the tendencies of a highly developed intellect, as modifying the other great ingredients of the mind,—Activity and Emotion. We have seen what are the prominent characteristics of Spontaneous Energy, and of the Emotional nature, let us now consider what happens when the current of vitality takes a more exclusively intellectual direction. Life being then principally occupied with Observation, Acquisition, Reflection upon what has been observed and learnt, new Identities struck out, and new Intellectual Constructions following ;—the active energy such as it is, works in subservience to these operations, and emotion is but a feeble flame. There is a quietness and serenity about the character, an especially imperturbable disposition of mind. Emotion cannot be entirely wanting ; no man is ever a mere machine, even an intellectual one ; but it burns as a feeble, all but imperceptible, flame, with occasional coruscations that attest the existence of sources of interest, in the driest region of intellectual pursuit. The ideal of the philosopher that has come down to us from antiquity,—not unfrequently realized in those ages,—exactly conforms with what we are attempting to picture. The abandonment of active life, in the shape of money-getting, political aspiration, bodily exercises (except as a necessary like food), the little susceptibility to the common emotions of human beings, the assumption of a sublime superiority over the common weaknesses,—are forcibly brought before our view in various degrees in

Socrates, Plato, Aristotle, Archimedes, and others of smaller note. It is not merely because the processes of intellect supply, as they unquestionably do, emotions peculiar to themselves, it is that the mind does not expend itself in emotion; the individual is satisfied with being a machine for a greater portion of its time. Having so much force that tends only to intellectual manipulation, this force must have its way, although the consequence be to reduce the sentient or emotional life to a small fraction, or to the flashes few and far between that still attest our common humanity.

There are certain emotions that grow out of the workings of intellect, and are consequently more felt by an intellectual man than by others, but even *their* manifestation is reduced by the general limitation imposed upon this part of the mind. In those far-fetched identities that bring under one law things formerly believed to have no connexion, as the great discovery of gravitation, there is a flash of pleasurable surprise; and he that spends his life in knowledge-getting, experiences many such surprises, as he traces the footsteps of scientific discovery. An original and highly illustrative metaphor has the same exhilarating effect. Literature and science both supply this agreeable mode of excitement. But there is a species of pain that is characteristic of the intellectual nature, and very little felt by others, and that is the pain of *inconsistent* statements, opinions, or principles. Large emotions with moderate intelligence get one easily over the shock of a contradiction, but to a mind constituted on the opposite type, inconsistency acts with a grating force and becomes a spur to intellectual effort, in addition to the natural disposition to exercise the predominating power of the mind. Whether this mode of pain is manifested exactly as the intelligence stands forward in the mind, or whether it has some special root besides, we must assign to it an important function,

namely, that stimulus to the search for *truth*, and not simply for various intellectual imagery or ideas, the non-recognition of which was treated above as an omission on the part of phrenology. We have seen that a small development of emotion, while it stints the powers of pleasure, increases the susceptibilities to pain, or rather it leaves us deficient in a principal means of assuaging the pains common to all mankind. Now an intellectual man, who realizes vividly this smart of contradiction, without being able to drown it in luxurious emotions, has no help but to labour for a reconciliation; and hence one great motive to follow out scientific investigation and to uproot popular errors. We may be quite sure that he that can sit down lightly under contradictions is not the man we are now in quest of.

The purest embodiment of intellect is doubtless to be found in the sciences; yet these may be prosecuted either for the sake of the scope that they give to this part of our nature, or for some practical end; in this last case they imply an intellectual nature in part, and in part something extraneous. We now and then light upon a pure instance, as in the mathematician spinning, spiderlike, ever new meshes of formulas, and disdaining to inquire whether they can be of any practical use. The intellectual exercise is in this case subject to the very smallest motive beyond its own spontaneity; the occasional discovery of an original combination, or of a new solution to an old problem, has a certain force of stimulation, but would be totally inadequate to induce the pursuit in a mind not constituted with an overflow in the region of intelligence. Philology, or language, presents another field of pure intellect. To collect and acquire and compare vocabularies may be not wholly unattended by emotional interest, but to a mind not specially fitted with the requisite intellectual mechanism, nothing could seem more arid and dreary than such a fate.

Natural history admits, it is true, of considerable sources of emotion, but a great naturalist must be characterized by a proneness to the purely intellectual operations of observing, discriminating, comparing, classifying, arranging, a vast multitude of things that have their principal interest in being the occasion of all those exertions on his part. We could not help remarking more than once that the greatest efforts of study are the disinterested efforts: as *Cæsar* was said to have proceeded with coolness to the ruin of his country. There is no walk of science wherein we may not exemplify the pure and disinterested, as well as the interested, pursuit. A logician and metaphysician may be gratifying an active instinct of energizing in those fields, or he may seek to employ them instrumentally, and abandon them when they are no longer subservient to his ulterior views. Sir William Hamilton considered that the highest recommendation of metaphysical study is the scope that it gives for intellectual gymnastic. The statistician may be a fact-collecting animal, building up tables as a beaver builds his embankments, whether they are wanted or not. Even a historian sometimes merits the reproach or the credit of a 'dry-as-dust,' teaching wisdom by example being as far from his thoughts, as the working up of romantic stories or the celebration of favourite heroes.

Next to science, the avocations of Industry and Practical Life afford scope for the exercise of intelligence in considerable purity, so much so that an intellectual man may often find his bent humoured to a very considerable degree, in one or other of those departments. Take the enlightened practice of Physic, and remark what opportunities there are for endless discriminations, and for laying up concurrences and coincidences, among the appearances of the human body in health and disease. A discriminating eye and hand, a retentive brain, a wide reach of identifying power, may be turned to account in stocking the physician's

mind, and it is well for him if he possesses these strong by nature, and suited for his particular subject, so as not to need any fictitious stimulants to fix his attention. There is no department of industry or practice, where the higher posts do not demand a vast range of minutiae laid up in the mind, with very few stimulants to aid their acquisition. There are no great attractions in the pence table, the forms of book-keeping, the prices of commodities, the details of buying and selling, until one begins to experience the delights of gain; but here, as everywhere, the stimulus of the direct motive will never fill the mind with that profusion of related knowledge, that enables a man to take a high and commanding success in business management.* A strong natural intellect, adapted for the conceptions relevant to the matter in hand, is not to be dispensed with in a physician, a mechanician, a lawyer, or a politician. No doubt an overwhelming motive in the shape of ambition, thirst for gain, love of pleasure, will give an artificial impetus to the attention, and the best natural power ought to be subject to such motives, in order to hit the practical mark; for we often find ingenuity wasted in this field, from no other reason than that the intellect is engaged in disporting itself, rather than in looking to the main chance. A small force thoroughly amenable to the *end* may achieve much more than a higher intelligence bent only in seeking its own exercise. It is not the man of many schemes and inventions that makes a fortune, although he probably represents the highest reach of pure ability. In the sphere

* A boy might be tested for business, or put through a 'competitive examination,' by being asked the prices of a great number of things that he may have himself bought, or seen others buy, in the course of his life, and the places where they were obtained. If this kind of information is found to cling to him by nature, and before he has any special motive of application, he has the true bent for trade. The late Mr. Morrison probably never forgot the price of any single article.

of industry, as well as in science, one may be intellectual over-much.

The creations of Fine Art are a less pure form of Intellect than either of the two other departments now named. There must be in this case a present emotional sensibility to guide the intellectual trains into the artistic channel. Consequently, when the emotional nature is largely developed, the turn of mind is apt to be poetical rather than scientific or practical, as already noticed.

It is worth while to allude to one or two illustrious examples, as showing what may be termed intellect in excess, and as serving to elucidate the views now advanced. Bacon will here serve us in good stead. Without undertaking to analyse the peculiar characteristics of his intellectual power, we can very properly describe it as out of proportion to the other elements of the mind; this want of due balance being connected with the unfortunate weaknesses that his ablest apologists have not been able to explain away. His intellectual profusion and originality may be traced from his boyhood upwards; and to the last hours of his life he incontinently disported himself in observations, reasonings, schemes, reflections, of the most multifarious sort. He was clearly overwhelmed by his own opulence, and unable to concentrate himself upon one definite object; for, although we have in his *Novum Organum* and *Advancement of Learning* something like a set purpose, yet it was one under which a man might introduce almost anything he had got to say, with the slenderest thread of method. Accordingly, those works are receptacles for his vast combination of thought and rhetoric, the one without much precision, and the other without much feeling or taste. The intellectual machine was one of unparalleled productiveness, and the matter was given forth as it came, with the least possible pains to raise it to any ideal standard, derived from the proprieties of either scientific or artistic

composition. To the men of after ages these compositions have had a great value, but only when the reader could by his own discrimination separate the chaff from the wheat. Probably Bacon himself thought his *Natural History* as good as the first book of the *Novum Organum*; to him they were equally the sport of an enormously active intelligence. We see also from his general character in life that the other regions of mind fell below average; his spontaneous energy was still intellectual, and his emotional sensibilities must have been very defective, those at least that imply strength, and not weakness, of character. His ambition, his love of magnificence, were the silliness of an oriental monarch, aspirations that the weakest of men are most liable to, mere unlopped heads of the human hydra; which only showed how his overgrown intellect had starved the sources of self-control, prudence, and propriety. We may safely say of him that he 'drifted' into criminality, from an utter defect in the power of forecasting the most obvious consequences. Whenever a display of intellect was called for, he stood forward like a giant; his pleadings at the bar, his speeches in the Commons detained every listener, and can now be read with charm. His projects for improvement, whether legal, political, or scientific, bore the impress of his fecundity; his private affairs, his public business, in so far as they took the shape of duty, had a miserable growth in that intellectual soil. We could expect of him nothing but vacillation of conduct, inconsistency and tortuousness, redeemable only when ability could match the occasion. Well could he have spared a fraction of his prodigious intellect to make up some of the other parts of his brain; perhaps a little more of purely physical energy, and certainly a good deal more of emotional sensibility in various shapes. To have felt some smart at the weakness and vulgarity of his taste for magnificence, would have been well purchased by a slight retrenchment of his rhetorical pro-

fusion. Excepting, perhaps, his *Idola*, we should willingly surrender his most brilliant dissertation, if the power had gone into the ramifications of his famished moral nature. It is not merely as regards his contemporaries, who felt the turpitude of his actual conduct, but as regards posterity, who have to do with his writings, that he was a man intellectual over-much. We are entitled to complain that his profusion is at the expense of discrimination; he had no notion what to reject. He pretended to be a logical reformer, and is himself the most illogical of thinkers; the fact being, that the project of logical reform was merely one outlet for his incontinent produce of conceptions and language. If he had been severe in his taste, and sensible of the fitness and unfitness of what he brought out to serve any one distinct purpose, we should have had in him less of the overgrown fertility of the jungle, but more of the profitability of the farm and the garden.

In Newton we have in some respects a contrast to Bacon, although we may illustrate in him also the onesidedness of character produced by an intelligence almost more than human. He is honourably distinguished for the purpose-like nature of all that he did. Instead of being an intellectual machine, pouring out an indiscriminate mass of material, he worked under severe conditions. His scientific taste, in other words, his standard of evidence, was far beyond his age, and was a principal means of advancing the age in that very particular. His reserving the suggestion that gravity was the force that kept the moon in its orbit, because the calculation did not at first correspond with it, is more to his honour than the discovery itself; and has operated as an everlasting rebuke to hasty speculation. His great mathematical productiveness, although evidently incontinent energizing in part, was also made subservient to physical discovery. While Bacon took up the character of Plato and Aristotle, like himself, men of enormous intel-

lectual fecundity, but deficient, especially the first, in all that regarded evidence, Newton succeeded to the great founders of Geometry, Astronomy, and Mechanics—Euclid, Apollonius, Archimedes, Eratosthenes, and Hipparchus—whose intellectual power submitted itself to the ordeal of a severe standard of demonstration and accurate observation. Still he, too, was evidently given to the intellectual gymnastic for its own sake. Even in the *Principia*, where Natural Philosophy is the end, Mathematics, the means, may be said to be in excess, justified only by the general apology that Mathematics cannot be in excess, because its greatest developments are never too much for the problems to be solved. The avocations of his old age were little more than exercises of his prevailing bent. Without saying, with his irreverent biographer, that his Theological studies were the indication of mental derangement, we may affirm that these studies, which occupied many of his years, bore no important fruit, either as confirming or as modifying the prevailing beliefs.

While, therefore, Newton is the edifying contrast to Bacon, in one view, there is another view wherein they alike confirm the general principle of the limitation of the largest natures. Newton, if not a remarkably virtuous character, was, with the exception of his conduct to Leibnitz, and perhaps also to Flamstead, inoffensive in his life; but was so morbidly susceptible to controversy and difference of opinion, that he was on the eve of burying some of his greatest discoveries, rather than encounter the worry that every discoverer must experience, from rival claimants and petulant critics. He suffered intense misery from this cause, showing an impotence of mental tone, a want of moral stamina, that but too well accords with the drain on the side of intellectual energy. Nor was he without some of that worldly ambition which led to the ruin of Bacon. Dissatisfied with his limited means and purely Academic

position in Cambridge—where, if he had spent his whole life, we have the testimony of a great living authority, Mathematical science might have been put forward a century—he sighed incessantly for the emolument and honour of state office, and in that seemed to find the fitting reward of his scientific genius.

The negative of Intellect is often expressed by the word Stupidity, which may have all the modes of its positive. One may be stupid in not discriminating where there is difference, in not retaining impressions that have been communicated, and in not seeing palpable agreement or likeness among resembling things. There is another kind of stupidity that has reference to practical ends, as when one lets slip from the mind evils to be guarded against. We call a man a fool that is twice caught in the same snare, or twice seduced by the same lure. This points to a mode of intellect demanding special consideration, and to it the following chapter is devoted.

There is an important contrast of the Intellectual and Emotional Temperaments, visible in the successions of thought in the two modes of mind. In the one, the intellectual forces by themselves govern the reproduction of thought; we remember things according to previous proximity, or according to similarity, or both. In the other, the feelings sway the course of reproduction, and intellectual relations bear a subordinate place. The one favours rationality of judgment, or decisions according to strict evidence; the other is the stronghold of every fallacy.

CHAPTER XI.

INTELLECT FOR GOOD AND EVIL—PRUDENCE.

I HAVE now descanted on the aspects of Intellect, taken as a whole, and must next proceed to the varieties, or special developments of it. There does not exist, in fact, any intelligence good for all things alike; and we must follow the example of the Phrenologists, in assigning the foundations of the several special aptitudes that we find occurring in the mass of human beings. In some, the impressions of one sense have a peculiar ascendancy, in others a different sense takes the lead. Hence the propriety of passing the senses in review for the purposes of intellect, as they were formerly reviewed for the purposes of emotion. A highly developed Touch leads to one sort of talent; acute sensibilities in Hearing determine various others.

But there is one branch of special sensibility that has been too little attended to, although leading to consequences which, as matter of fact, are well recognised in common speech. In discussing the Phrenological organ of Firmness, I showed that there are serious difficulties attending the explanation of this quality, whether we regard it with the Phrenologists as an *ultimate* quality, or as a mode of the Spontaneous Energy, or as an Emotional peculiarity. We cannot call it ultimate, for we find it attaching to some things, and not to others. A man is often firm in his business, and weak with his family—obstinate in a single pursuit. If there were a distinct organ of firmness it ought to appear in every part of the conduct. We have also seen that mere Energy, of the Natural or Spon-

taneous kind, may be very fitful and vacillating, and yet abundant in point of quantity. Nor can the Emotions account altogether for the attribute in question, which occurs frequently in its highest manifestations where these are wanting in strength.

In this perplexity we are driven on the alternative of connecting firmness with the Intelligence, of which it must be one of the special, or partial manifestations. A little reflection will convince us that there is no improbability here. But we should first take a much wider view of the question to be solved, the view presented by the comprehensive term, Prudence, which both implies firmness, and puts it in its truest light, as a property, not existing in the abstract, but embodied in certain special departments of human pursuit.

If we experience *any* sharp pain, the impression of it continues in the recollection after the actual hurt has been healed. We have a memory for pains, as well as for places, dates, or facts of Natural History. Some persons have this sort of memory in considerable strength, others very little. The distinction is shown in the readiness to anticipate the recurrence of pain, when it is imminent, and in taking steps to avoid it. Even among children the difference may be seen strongly marked. The pain of a fall is by one forgotten when the smart has vanished, and the accident is again incurred as heedlessly as at first; another retains a sufficient recollection to take precautions for the future. Whether this kind of memory be due to the quality of general retentiveness, or to a special development of local sensibility, or to both, it is one of vital importance to the individual, and underlies the whole area of the moral character; having its roots in a property which is, strictly speaking, intellectual, its branches spread out far and wide into the volitional or active region of the mind. Pleasure is remembered in the same way, and with the same prac-

tical efficacy. Instead of living purely in the present, or actual, we carry with us a certain store of recollections of the past, and anticipations of the future, and steer our course by the idea of coming delights. We are not only pleased with an object at the time of its real presence, but we work for it in absence, in proportion to the goodness of the recollection of what the reality was. If the memory is strong, we do full justice to the pursuit of the good; if the memory is weak in this region, we do ourselves injustice by not seeking what is for our happiness.

The commoner forms of prudence and imprudence are represented by a full or deficient recollection of good and evil. This is at the bottom of that strength or feebleness of Will, which is the faculty usually said to be concerned in these cases. There is no want of will under a *present* strong pain; not that all men's wills are equal even then; but a pain really felt is an effective stimulus to the active energies, whether these be naturally great or small. A pain not felt really, and not remembered at all, or very faintly remembered, cannot stimulate the most energetic nature; so that, in point of fact, when the reality is past, the power of remembrance is everything. If a dog has no memory for the whipping he got yesterday, he will disregard what he is ordered to-day, not for want of will, or the power of acting to ward off pains and attain pleasures, but because there is not present to his mind the proper motive. When the motive is not actual, but ideal, the intellectual force of the mind, the quality of retentiveness, is essential to its operating. The animal that has the best memory for whippings is the animal with the strongest will, the highest moral nature. It is at this point, and at no other, that intellect is the support of right conduct. A brain untenacious of impressions generally, and of pain and pleasure particularly, will not develope prudential virtues by means of either spontaneous energy or emotion. It is

the natural aptitude for effectively retaining, and on occasion reviving, the impress of the evil and the good that we have passed through, coupled with all the circumstances that favour that retention, which is the true foundation, the *sine quâ non* of the active resolution, the perpetual will for self-preservation and safety. Frequent experience of some one species of pain—ill-health, fatigue, disgrace—helps to make up for a recollection originally feeble, so that we at last arrive at the proper pitch of precautionary determination in that particular, just as a slow child learns its letters at length by dint of fivefold iteration. But until the defect of the memory for pain is made up, prudence is not to be looked for in man or animal. On the other hand, if we could but render the recollection of past suffering sufficiently lively, at the time when one is on the eve of falling into the same snare, there would be no want of resolution, no failure in virtuous determination. If the intellectual element is sound, all is sound.

Here, as everywhere else, the intensity of the impression favours the remembrance of it. This is one reason for making punishment more severe, less inflictions leaving too little trace behind them. But in this need of higher severity there is implied a feeble retentiveness for pain, which, I repeat, is a great fundamental weakness, intellectual in its source, moral in its consequences. Even in children we note a difference in capacity as regards these impressions, a difference that runs through their whole character. It is the circumstance principally determining whether they are good or 'naughty' children, whether they can be controlled and disciplined at little cost or at much. Some children are so deplorably unretentive of good and evil, that they run into the same fault in the evening that they were severely punished for in the morning; not that punishment is indifferent to them, but that the bitter experience has been completely erased from their brain—

they have no memory for pain. After the wrong deed is done they are mortified, and repentant to a degree; from their excitement at that moment, the real suffering that they are plunged into, one might suppose that they would be deterred for ever from the same fault. The fact is quite otherwise, and the only account that we can give of so strange an inconsistency, is to suppose a radical defect in the power of retaining all such impressions. No doubt, also, we must take into account great strength of impulses in the other directions—an impulsiveness that often coincides with weak retention of evil experienced, and completes the conditions of aberration. By the force of one, or both, of these two circumstances, we explain that peculiarity of character, not intrinsically vicious because of its containing dispositions to good, but producing much of the bad consequences of vice, namely, the *sinning and repenting* character. In early life we allow for the feebler remembrance of past pain and pleasure, and yet instances occur of prudential tenacity from tender years. But when it continues in a marked form up to maturity, we account it a radical vice of the constitution, seeing it is the parent of recklessness, fickleness, and every imprudence; nor can social virtue ever take root in a soil, that has been unable to produce the ordinary measure of self-preservation. Sometimes the character that exhibits that feeble tenacity for the severest warnings is one, in other respects, of a very lofty kind, one whose remorse is so sublimely exhibited, as to make us forget the incontinent folly that led to it. The defect at one point has probably arisen from excess in other qualities that have a redeeming lustre. We are constantly endeavouring to palliate the imprudences of a Burns in consideration of his genius, and we must always, to do justice, admit into the account the energy of the feelings, appetites, and impulses, that carry a man beyond due bounds, and in spite of well-known consequences. All

this is due to poor human nature. Still, when we are analysing and explaining the foundations of character, we require to show how much depends on one special mode of the retentive intellect, which, possessed in a high degree, confers a kind of superiority—of genius, if you will—and which no other known power of the mind can substitute when wanting.

The designation of Prudence in forecasting good and evil consequences, does not fully convey all the bearings of the attribute in question. What the phrenologists term Firmness, but which is perhaps better expressed by *steadiness of purpose*, must be traced to the same root. As already remarked, every man is firm, resolute, energetic, strong-willed, when under the pressure of a present pain, or in the immediate prospect of a great pressure, unless indeed his natural energy be either very low, or in an exhausted condition. No one is deficient in energy when his house is on fire, or his child on the eve of drowning. But as pain and pleasure are not always present in the actual, although sure in their advent under certain conditions, we must work to stave off the one and secure the other, under a spur that derives all its force from a tenacious memory for each. Accordingly, when a man has entered on a protracted course of action, urged by the evils of poverty or the delights of wealth or greatness, and when his labours under this design must often be trying to the natural love of ease, what is to keep him up to the mark but the vivid presence, in idea—the firm recollection—of the pains and pleasure on whose account he first started on his career? Let these dissolve away from the mind, whenever their actual pressure is unfelt, and the energy of the pursuit will vanish with them. It is in favour of such ends as have an abiding hold of our memory that we are steady and firm; we need the spur at all times, and when that is not an actuality, there must be a power of representing it in the

idea, which is nothing but the natural retentiveness of the mind, the essence of Intellect, aided by force of circumstances in the particular case. If the head of a family, of a school, or an army, is unflinching, it is because the known evils of a relaxed authority are not forgotten or blotted out, when not actually seen ; in minds that have no tenacious sense of these evils, we could not, by invoking a power of firmness in the abstract, produce the same line of conduct.

It is needless to multiply examples on a theme so obvious. But there is still another application of the same general principle, in the characteristic of steadiness of mind and demeanour under all the fluctuating appearance of human life. This is substantially the same fact,—the subjugation of present impressions indicating the pressure of the moment, by the remembrance of past impressions that convey a correct average of all times and circumstances. The two opposite kinds of character are known to every one's experience ; the source and explanation must be sought in the force of the intelligence in the department of good and evil. One man alternates between hope and despair, according as his horizon is clear or stormy at the instant ; another brings up a firm recollection of all the circumstances past as well as present, and is enabled by that means to resist the undue influence of the actual. A friend that we put great reliance on passes us coldly by on one occasion ; according to the tenor of the mind is the disposition either to consider that we are forsaken by him, or to abide by our former experience. The old are naturally more firm in this respect, because iteration serves to deepen the impression of feelings as well as of ideas ; nevertheless, we cannot fail to remark great natural differences among men on this point, as in other intellectual peculiarities, whereby the young may outstrip the advanced in years. By virtue of a tenacious hold of all the facts that represent to us the good

and evil of our lot in life, we strike a sort of average of the whole, and adjust our tone of mind to that average, not being sensibly elated when a bright phase comes over us, nor depressed when the actual is all shadow and gloom. And as with the whole, so with the constituent parts. Our expectations from any one thing, or any person, are *balanced* by the sum of our experience of such thing or person, and, in so far as the memory of our past is faithful to us, we keep our estimate always at that even balance, notwithstanding occasions that deviate widely from it. An infirm recollection on the other hand, leaves one always in extremes, and in fluctuating views of the same fact. The vice may properly be called 'moral' because it relates to conduct that is good or evil for ourselves or others, but its origin is an infirmity, or negation, of the intellect.

We may compare the operation of the positive quality to the balance-wheel in machinery, which receives from the moving power impulses varying at every moment, equalizing these by its own momentum, and thus imparting a steady movement to the whole mechanism. Or we may compare it to the reservoir, fed by a fitful supply, but still emitting a uniform discharge. The man that is intellectual in the sense now explained, is in a balanced, or average, state of mind as regards everything that can befall him; no new fact is allowed to work itself out, except by being first distributed over the general sum of the previous facts, which it therefore seldom affects in any appreciable degree; he carries *ballast*.

In the *beau idéal* of a philosopher of old this steadiness of mind, and the settled calm and serenity that it diffused over life, were even more prominent than range of knowledge, or depth of speculation. It was not because knowledge is virtue, as Socrates held, that the intellectual man was also the man of persistent purpose, and lofty superiority to passing impressions; but because intellect includes in its

scope this department of conduct, no less than the observation of nature, or the building up of the abstractions of science. Large general powers have a chance to be of avail in the moral field, and hence it is in the class of intellectual natures that we find the steady virtues and the serene temperament most usually displayed. Still these general powers may also chance to go purely into the region of ideas, and leave a man no better than the generality as regards the balance of the conduct, the momentum of the fly-wheel; while in other instances, the same powers may be almost exclusively absorbed in the tenacious recollection of good and evil, and then the person is as remarkable for the wisdom of his actions and the serenity of his temper, as Newton for mathematics or Demosthenes for eloquence. Such a prudential genius was Franklin; while in Socrates we have an intelligence of the largest order, fruitful both in speculation and in conduct—a philosopher in every sense. When I spoke of Bacon and Newton as being in one view intellectual over-much, I there alluded to the knowledge-intellect, which in them was developed at the expense of the department now considered.

CHAPTER XII.

INTELLECTUAL ELEMENT OF DISINTERESTEDNESS— SYMPATHY.

IN the foregoing remarks I kept specially in view the regard to one's own happiness, the effective remembrance of past evil for future avoidance, and of past good for future efforts of attainment. To a certain extent this covers the field of social duty also; for prudence leads us to refrain from everything that society punishes, and to do the things that society rewards. In fact, a very enlarged and far-seeing prudence, such as Franklin embodied, would comprehend nearly all social virtue. For an enlightened mind not merely keeps clear of larceny and burglary and the crimes of the gallows, but sedulously avoids whatever brings down censure or reprobation, and endeavours after the rewards annexed to charity, philanthropy, and public spirit. The thing that a refined prudence will not do is to go beyond the age. In adopting the maxim 'that honesty is the best policy,' the honesty will be exactly what the society approves; it will no more rise above the prevailing standard than fall beneath it. The prudent man will not reprove slavery in Virginia, nor polygamy in Turkey.

We might have thus a very large part, or nearly the whole, of conscience made up of the purely self-regarding elements of the mind; seeing that it is not the slavish conscience alone, or the fear of legal punishment, that is here included, but that higher sensibility that dreads dishonour, and courts the approbation of our fellows by working for the public good, according to the notions of the

time. Before invoking a separate power of the mind, called a Moral Sense, we ought to inquire how far this self-regarding conduct will account for the impulses to social duty actually manifested. Not only so, but we ought to take another step, and see whether there be any other general principle of the mind, besides the prudential, that contributes to the dutiful disposition and conduct,—something that has the same regard to our fellow-beings as the other has to self. In short, besides the *interested* motives, we ought to look out for the existence of *disinterested* motives also.

Granting it were ideally possible, that prudence in its highest development were found sufficient for a tolerable measure of social virtue, it is not at all common to find this high form of it. The intelligence for good and evil is too weak by nature in men generally, and too little cultivated for this end. We should be nearer the mark in affirming, that the actual amount of virtue occurring among human beings, is made up of a certain degree of prudence, with an admixture of disinterested impulses. We do not find either prodigies of consummate prudence, or miracles of self-denying disinterestedness. A certain moderate share of each, the proportions of the two being very various, enters into the average Englishman, Frenchman, or German.

We have searched into the foundations of far-sighted and resolute self-interest, and have found them to be in the Intellect; the question now arises, have the disinterested motives the same foundation, or may we have recourse to the Emotions in giving an account of them?

If there be any one of the well-recognised emotions of the human mind, that would prompt to disinterested conduct, it would be the Tender Feeling, to which we ascribe pity, benevolence, and the home affections. Certain objects excite our love and tender regard, and we in consequence cherish those objects, and seek their welfare in all possible

ways. Such would seem the obvious state of the case. But a closer scrutiny will qualify this rendering of the effects of tender feeling. It cannot be disputed that if anything produces in us a strong liking, whether a flower or a friend, a child or a heap of money, we shall protect and care for that object, for the sake of the pleasure it brings ; but this pleasure is our own, not the pleasure of the child or the friend. Mere liking attends only to itself, and does not necessarily imply devotion to another self. There is a form of love extremely common, whereby people court other persons merely for their own pleasure, and no longer, just as they live in a house so long as they find it agreeable, and quit it when that ceases to be the case. This is all that would arise out of mere tender feeling, considered as the result of a charm inspired by engaging qualities. Far from being a disinterested affection, nothing is more purely and strictly interested than such a state. We should not be led by any amount of mere love to sacrifice self for the object of that love ; there is, in fact, a sort of contradiction in the very notion of it. Liking implies that something pleases us, and is sought for that reason ; but to renounce our self and incur pains, is to act on the very opposite principle, and would seem to imply that we are moved not to what we like, but to what we dislike. Disinterestedness is as great a puzzle and paradox as ever. Indeed, strictly speaking, it is a species of irrationality, or insanity, as regards the individual's self ; a contradiction of the most essential nature of a sentient being, which is to move *to* pleasure and *from* pain. In renouncing this fundamental principle of our mental constitution, we are always on the verge of absurdity and lawlessness. For when a man has ceased to care for his own welfare, or to act for his own pleasures, why should he care for anybody else's welfare ? He has disowned happiness as a pursuit, and to be consistent, he ought to extend the same measure to all around him.

And yet Disinterestedness is a fact of our constitution, and without it there would be nothing that we should call great virtue in the world. Perfect forethought as regards self would be the utmost stretch of meritorious conduct. People have always been found ready to sacrifice themselves for others, and in so doing have been acting under motives reckoned perfectly natural. It is accounted the glory of humanity to possess these contradictory impulses. Still we must treat the 'vivre pour autrui' as an exception to the only sane principle of conduct, which is for every being to look to its own pleasures and pains; a brilliant exception it is true, something of the *splendide mendax*, but never to be made the rule without even suicidal consequences. In acting for the good of others, we must still retain the original and more fundamental principle of acting for our own good, otherwise we lose all measure of what is good for any one, and all propriety in working to secure that. It demands an effort of rational consideration to adjust these two conflicting elements—so to seek our own good as to do full honour to the 'first law of nature,' and yet on occasion to remit the principle in favour of seeking the good of others.

Sympathy is only a different name for Disinterestedness. The essential feature of the phenomenon is the assumption of another person's state of mind, and the acting upon that as if it had originated in one's self. What is termed Pity, is the broadest and most conspicuous manifestation of it; there being some strong apparent distress that the spectator cannot help understanding, and which once taking possession of his mind, he must do something to alleviate. What is the nature of this peculiar impulse to go out of self, and inhabit, as it were, another's personality?

Whatever else may go to complete the phenomenon there must be certain intellectual conditions at the commencement. The state of mind suggested to us must be one that we have had experience of, and can well remem-

ber, on being reminded of it in any way. I cannot sympathize with a distress different from any pains that I have ever known : a child cannot understand the disappointments of mature life. Not only must there be past experience, there must also be, exactly as in prudence, a tenacious hold of that experience, a good ideal persistence, so that we may conceive it fully without having it present in the actual. I may have once felt the pain of toothache, but if I have utterly forgotten it, I cannot sympathize with a person now suffering from that ailment ; excepting indeed, in that general way, that one can imagine an acute pain without hitting its exact nature. We need, therefore, to have had experience of the good and evil that we are expected to sympathize with, together with a tenacious memory for that experience, such as avails us in directing and regulating our own conduct. The only other requisite of an intellectual kind, is a knowledge of the *signs* of other men's feelings, or of the expression, gestures, and language whereby they indicate what passes within. As regards the commoner varieties of human pleasure and pain, this is an acquirement that begins early and soon attains a tolerable maturity. The child knows the signs of acute distress, or of lively enjoyment, at a very early date ; and being taught the names of the various human feelings, as fast as it has experience of them—joy, grief, anger, hatred, pride, remorse,—is sufficiently versant in the language of feeling to comprehend whatever is intelligently represented. If one enters but imperfectly into the elaborate description of the state of mind of a hero of romance in an interesting situation, it is not so much from ignorance of the language used, as from inexperience or inadequate recollection, supposing one has had experience of the feelings that are set forth. Thus, then, a well-remembered experience of the conscious states that we ourselves have passed through in the course of our lives, is the real basis of the power of sympathy, and is of course the

very same basis which serves for prudence, steadiness of conduct, and serenity of temper in our own individual career. Whether or not this be the whole of the requisites, it is certainly a part. He that can distinctly foresee all the pains of having undertaken more work than he can perform, so as to possess a strong motive against repeating the mistake, must have had a good recollection of his former experience on that head, and by possessing such a recollection, he has to a certain extent the power of conceiving what another man is actually suffering in such a predicament. No doubt perfect sympathy implies something more than one's own recollection in a similar case ; there should be a power of allowing for *difference of character*, but that only shows that the refinements, and the superior gifts, of sympathy are begotten of a still greater force and culture of intelligence. If I bring up my own recollection of wounded pride to enable me to condole with a friend suffering from that cause, and if I can adapt my own experience exactly to the case, from knowing that the sufferer is peculiarly sensitive on that point, I possess a more than common intellectual endowment in the matter of sympathy, and comprehension of other men's minds. Of course, in that case, I should be all the more urged in my disinterested endeavours, to devise some soothing application for the wound that I so fully appreciate.

It will, I think, be amply conceded that the *capability* of sympathy is an Intellectual fact, expanding as intelligence in this particular application is expanded. It is not so obvious that the possession of the power leads to the actual employment of it ; indeed, there is evidence to the contrary of this. The men that have the largest aptitudes are those that observe and study human nature, both their own feelings and the feelings of others ; for example, poets, historians, orators, politicians, mental philosophers, &c. ; but are these the men that really do enter largely into the exact mental

condition of those about them in the way of sympathizing with joys and sorrows? Have we not rather the fact that Goethe, for example, kept out of the way of suffering, because it pained and unhinged him; proving plainly that he had the greatest possible aptitude for taking in the miseries of his fellows, but positively declined the occasions when he might be called upon for that purpose? So a political leader or skilful orator must know men thoroughly, and must be able to conceive all their strong feelings; but he does not, therefore, as a matter of course show a sympathetic disposition. He may use his knowledge simply for his own ends. The same remark extends to the metaphysical philosopher, in whom ability may equally exist without being applied in the way now described.

It is clear, then, that something must be added to the intellectual capability to constitute effective sympathy. We have already seen that love does not of itself make sympathy; but may it not be the wanting element in the cases now supposed, the motive force that enables the intellectual gift, otherwise barren, to bear the fruit of genuine fellow-feeling? Having this ready power of entering into the pains and pleasures of other beings, and having a strong love for some one or more, we ought, it would seem, as a matter of course, to devote ourselves to the lively apprehension of their pains and pleasures in particular. Now, undoubtedly this is the case. Love is an inducement to sympathy, and hatred the opposite. Any one skilled by natural gift or special study, in reading character, in knowing from the outward symptoms and circumstances, what a person most probably feels in a given situation, and also engaged with some strong special affection, will be sure to display an effective sympathy for the object of that affection, far beyond what the same love would inspire in one poorly versed in the observation of human beings. So far, then, we have something that would supply

the missing link. Still, I do not think that this goes far enough to account for the facts. It leaves out that wide operation of sympathy towards beings that excite in us no special affection. It is well known that men have spent their lives in doing good for the least loveable of their race; and that philanthropists are not always men of great warmth of natural affection. The power of love explains the home sympathies—the consideration paid to the feelings of children and intimate friends and associates—but it will not explain sympathy at large. We cannot, if we were ever so affectionate, love all the outcasts of all lands, or the criminals in every jail in Europe. It is the essence of philanthropy to take up with those that nobody loves, and that not even the philanthropist himself can be said to love, except by a very rude figure of speech. There is a principle of tender regard in the human breast, that does not permit us to exterminate even what is hateful and loathsome, that puts an arrest upon malevolence, and revolts from cruelty. So that the intellectual capability of knowing men's feelings, even when coupled with love, still falls short of sympathy.

It would be useless to invoke any other special emotion. We seem to be driven, after all, upon some intellectual property, which one might describe as follows. It is a fact of the human mind, whether ultimate or resolvable into others more general, that when we are in any way made to feel or know that another being is in pain, we are arrested by that very circumstance, in fact, take possession of, and are unable immediately to shake off the impression. The pain becomes for the time our own pain, and we act upon it as if it were so. Whatever we should do for our own relief, we are prompted to do for the relief of the real sufferer. There is a power in the state of pain (or pleasure), witnessed as affecting another being, no matter who, to seize upon our mental attention and regard, to become a

fixed idea, which we must act out, just as we act out any present or remembered pain attaching to ourselves. It is a property of human beings to be affected in this way, irrespective of love or hatred or any emotional cause, although these other influences greatly *modify* the effect; and it is also true that men are by nature *unequally affected* in this way. If we are unable to resolve the phenomenon, we must for the present account it an ultimate susceptibility, greater in some constitutions than in others, like the sense of colour, or of tune, or the aptitude for numbers or geometry. If existing in a high degree, and accompanying that knowledge of mind above described, it renders one eminently and extensively sympathizing; without the knowledge, its sphere is limited, but its operation still intense within the individual's limits of cognition. An uncultivated person with the *tender-hearted* endowment, the tenacity for pains and pleasures as manifested by others, will sympathize deeply with the more obvious distresses only, with poverty, illness, family afflictions, or with any marked demonstrations of pain.*

Perhaps, however, like the melancholy of Jacques, sympathy may be compounded of many simples. It would not be an arduous task to show that all the leading attributes of the mind affect it in one way or another. To go as far back as the purely physical condition of the system: very robust health is known to be adverse to it, by making one less acquainted with pain and misery, and less dependent upon other human beings for solace and comfort. Abundant

* In a former chapter (p. 112), I conceded to Phrenology the likelihood of regarding the tender-hearted disposition, when generalized to the utmost, as an ultimate fact of the constitution, for which a local habitation might reasonably be looked for in the brain. In a matter where the Psychological analysis is subtle and obscure, and where the sentiment concerned is one of great prominence in the mind, the well-established concurrence of a cerebral development with instances of the quality in a high degree ought not to be rashly set aside.

Spontaneous Energy likewise operates unfavourably, since we are thereby more disposed to go out in action than to imbibe impressions. An energetic temper may take up philanthropy as a means of venting itself, but the determination of the system to the energizing mode draws it off from wide and various susceptibility to the external world of human beings. The Emotional temperament, on the other hand, is well adapted to respond to the signs of joy and woe in other beings, from its own natural proneness in that direction. Persons so constituted are usually of a tender-hearted disposition, at least as regards the more obvious and intelligible causes of pain or delight; they very often display a profuse generosity, whose failing is to be too little discriminating. The special emotion of love, as we have seen, is in the right direction so far as it goes; while the egotistic emotions—gain, vanity, pride, power, malevolence—are all counter to sympathy. The Intellect supports it in various ways. In so far as we are observing, receptive, acted on from without, instead of being given to pour out strength from within, we are open to the signs of other men's feelings in common with other outward agencies; the sound of a groan, the sight of a grief-smitten countenance, seize hold of the receptive mind and will not let it go. We may have a special sensitiveness to these effects, as we have so many other modes of special sensibility. But whether or not these or other causes, are capable of resolving the phenomenon, the best form of expressing it is, probably, that given in the preceding paragraph. The questions to be asked are: How far manifested pain or pleasure can take possession of the mind as an operative fixed idea, to the exclusion for the time of our own proper concerns; and what is the range of our susceptibility to the sufferings and joys of living beings? Is the mind naturally insensitive to the cry of pain and the voice of pleasure, or so bent on pursuing exclusive ends as

to give these utterances no abiding hold, or so deficient in the power of knowing human nature, as to be seldom aware of what others feel ?

No questions are more pertinent when we are making inquisition into character. I have already maintained that we must look here for the sources of Conscientiousness, in so far as that is not an elevated and far-sighted prudence, which society, evidently aware of the precarious and paradoxical nature of disinterested action, is always striving to render it, by supplying the rewards that the conscientious man does not bargain for. To be always up to the mark in the discharge of duty, we must either have a lively and enduring sense of the punishment of neglect, or an equally lively and enduring fixed idea of the pains that will be incurred, or pleasures lost by some of our fellow-beings. Our minds need to be well stored with these apprehensions of pain and pleasure in order to be conscientious, very much as one must have a store of words in order to be eloquent, or of the experiences of trade in order to drive a good business. The analogies of conscience, as of prudence, are thus in the Intellect, although they make a department of their own.

CHAPTER XIII.

SPECIAL INTELLECTUAL ENDOWMENTS.

I HAVE adverted to the comprehensive attributes of INTELLECT—Discrimination, Retentiveness, Similarity,—and have dwelt upon the two great departments of our moral nature, that seem to be related to our intelligence no less really, than the commonly understood operations of memory and reasoning, namely, Prudence and Balance as regards self, and Disinterested behaviour as regards others. In passing now to the special manifestations of intellectual power, it will be found that previous discussions have left comparatively little, in the shape of new burdens to be imposed upon the reader's patience and attention. These various manifestations turn either upon local susceptibilities, such as Tact, Musical Ear, eye for Form, &c., or upon these in combination with the general attributes of this part of the mind, especially Retentiveness and Similarity. As regards the local susceptibilities, it was impossible to follow Phrenology without doing full justice to them, it being a principal merit of the phrenological school to have sought them out in detail. It is left to us rather to point out, how the explanation of the higher manifestations of intellect halts, by being too exclusively dependent on the plan of assuming unequal sensibility in these local organs.

The SENSES have already been reviewed in their Emotional aspect, or as sources of our pleasures and pains. We must now look at them in the Intellectual aspect, that of discrimination and retentiveness of their impressions ;

and if we do not take with us also the power of recognising likeness in the midst of unlikeness, it is because that power (and in some measure retentiveness also) is perhaps more properly to be included in the *general* than in the *local* energies of the mind. The one property of Sensation that is both a strictly intellectual property and also special and local, is unquestionably Discrimination—the lively sense of difference wherever difference exists. He that can best discriminate the minute shades of colour has the highest intellectual endowment of optical sensibility, an endowment that is apt to be accompanied more or less with the susceptibility to pleasure from colour, but not either necessarily or in proportionate degree; sometimes, in fact, there is the appearance of an inverse proportion between those two.

The Local Sensibilities of an intellectual kind, then, may be enumerated either on the Phrenological scheme of observing faculties, or, as I think better, according to the Psychological arrangement of the senses, including with these the muscular feelings. Commencing with the last, we are able to note special characteristics as attaching to the MOVEMENTS, giving birth to important aptitudes. Apart from mere energy of muscle, which is not to be entirely left out of the account, we should advert to the copious and various spontaneity of the movements; a truly cerebral peculiarity, of which evidence is to be found in the early and pronounced *flexibility* of the moving organs, some or all. First, as to the *locomotive* group, and especially the upper limbs, there may be a good natural compass of movement, eminently favourable for acquisitions of the mechanical kind. The *vocal* organs may have much or little of the same natural flexibility, arising from the peculiarly high development of the vocal centres in the brain. The play of *feature* is seen in some persons to be originally very various and flexible; in fact, the characteristic of

flexibility is best understood by noticing the features of a corn actor, and comparing them with instances of an unusually immovable countenance. Next to the primitive mobility, we should advert to the sensibility to degrees of exertion, or expended force, the foundation of all delicate *graduation of power*, and consequently of fine execution in any department of muscular action,—the constructiveness of the mechanician and the manual operator in every walk,—the management of the vocal organs in singing and speaking,—the precision of the actor's demeanour. The proof of such an endowment is in these effects, although they do not depend upon muscular sensibility alone, but in that in conjunction with the special sense of the results; Touch in some manual operations, Sight in others and in stage display, Hearing in vocal efforts. If we are anxious on the point, we can easily separate the two contributing agencies of mechanical aptitude. That delicacy of central organ, which favours discrimination, may also be presumed to favour special retentiveness, this being naturally greater with the most lively impressions, and being of essential importance in the attainment of manual or other skill. If the brain is gifted with a good *general retentiveness*, these special acquirements, for which there is a good preparation in the existence of a high local sensibility, will be proportionally rapid and extensive. When we add the presence of an *emotional interest*, we seem to omit no leading element at the foundation of great powers of execution by means of bodily members.

Of the SENSES the least intellectual are Taste and Smell; but as both these have a wide compass of discrimination, serving valuable uses in life, they are not to be entirely relegated to the department of mere emotion. Without local organs in the scheme of Phrenology, they must still be conceived as having each a relation with a definite mass of the cerebrum, on whose quantity or quality

the energy of their discriminating function is dependent. Still, it is the three remaining senses that are to be considered the pre-eminently intellectual members of the group. Touch is so mixed up with muscular perception, that it is only by an effort of analysis that we get at the purely tactual sensations; namely, roughness and smoothness, and to a certain limited extent, hardness and softness. The delicacy of surface of fabrics of manufactured stuff may be appreciated by proper tactual discrimination, although the muscular sense, being always present, can hardly be prevented from mixing itself up even in these matters. We have said enough of the many aptitudes that aggregate round the Sense of Hearing, and may now be excused from wordy repetitions. The Musical sense, the sense of cadence in Elocution, and the sense of Articulate Form, are the three great varieties; the last may enter into the highly intellectual aptitude for Language, certainly when that is acquired by the *ear*. It is equally superfluous now to dwell upon the discriminating sensibilities of the Eye—Optical and Muscular,—since it has been already seen that many and various powers result from their being highly endowed; not only the artist in colour, but the poet, naturalist, and observer of nature for all purposes, demanding the *optical* sense in good measure, and the other, that for Form, &c., entering into a wide range of the human capabilities.

Those Muscular Feelings and Sensations, clearly discriminated and strongly retained, make up our world of ideas, the vast total that we term our Knowledge; and the character and extent of that knowledge will show what primitive sensibilities predominate in the mind. Here it is obvious the quality of general retentiveness must play a part; but in cases where one takes hold of some things firmly, as words, and of other things loosely, as forms and colour, we must revert to a difference of local sensibility as

the explanation. When there is a tendency to remember all classes of impressions with more than average tenacity, although all not quite equally, the general power is signalized as more conspicuous than the local developments.

In so far as knowledge is made up of those various impressions derived from our contact with the world, through our movements and senses combined—in other words, when it is the engraved picture, the persisting echo of what goes on around us—it is a simple product of impressiveness and retention, the result of what Phrenologists call faculties of observation. Such is the acquirement of our mother tongue and of all routine utterances that we are accustomed to; our recollection of the persons, and places, and objects around us, with the operations and movements that go on in our presence. Such also is school and book learning, imbibed and stored up in the order of its reception. But we cannot go far in this course of literal reciprocity without coming upon a new phenomenon, namely, the power of selecting and re-combining these acquired trains of words, and images, and notions, and producing something quite different from our first experience passively received. The mind takes an active fit, as it were, and works up its store of sounds and sights and touches into multifarious combinations, and delights in this power of fabrication and origination. This is a faculty wherein individuals differ very much, presenting us on the one hand with tame and literal retentiveness, vast stores taken in and left very much as they were received; and on the other hand, less receptivity, but a greater activity of constructiveness, whereby the mind is prolific not so much in memories as in products. An enormous reader, a book glutton, whose reproductive faculty is little beyond the recollection of matter read, is in marked contrast with the original force put forth by Aristotle, Newton, and Hobbes, who also read, but so utterly transformed their received impressions, that we

could scarcely, from their own works, trace the raw material as first communicated to their minds. Where shall we place this peculiar energy in our scheme of the faculties? Sometimes spoken of as Imagination, sometimes termed Genius, the Phrenologists have hardly been able to embrace it, except by occult assumptions at variance with the plainness and tangible nature of their scheme. One mode of depicting it partially is by constituting a region of the Reflecting faculties, which, two in number, embrace—one the comparisons of Poetry and Literary illustration, the other the combinations of Science. The shrewd devices of a skilful mechanic possessed of no science, exemplified on a great scale in the Chinese inventions, the fertility in practical resources—the glory of the English mind, and the greatness of the English nation—the genius of an Arkwright, a Watt, a Stephenson, a Wheatstone, a Rowland Hill;—are not to be explained by any combination of Phrenological organs, nor by any amount of combined susceptibility and retentiveness, although both these qualities are necessary in a certain degree to the result. In all departments, in Music, in Painting, in Oratory, as well as in Business and Science, a distinction has to be made between consummate and extensive Acquisition literally reproduced, and Originality. A musical composer is endowed in a different way from a first-rate performer, although both must have a musical ear alike. In fact, the great desideratum in the theory of intellectual character, is to give an intelligible resolution of this innate power of recasting and moulding the raw material of thought, this determination to self-activity, so to speak, in place of remaining content with the received forms and order of the communicated impressions. In short, it is the problem of Original Genius that is the reproach of the schools of mental philosophy.

CHAPTER XIV.

TALENT.

BEFORE considering the sources of Originality of mind, let us advert again to what is meant by Talent, namely, the faculty of doing well what has been done before, and needs only study of examples and power of acquisition. Of the less complicated aptitudes, enough has been said. We have seen, for example, what is requisite to constitute a manual workman, or a musical performer: namely, the nice sense of graduated exertion in the active organs; sensitiveness to the effects to be produced; interest in, or enjoyment of, the effect, which is the motive to employ the powers upon it; and general retentiveness to build up the successful tentatives into a fabric of acquired power. The instrumental musician, for example, combines good hands, a good ear, a delight in music, and a good memory, or retention of what he has once achieved. These four elements will suffice for a tolerably adequate explanation both of handicraft skill, and of artistic execution in all the departments of Fine Art. The most indispensable quality is the Sense for the effect to be produced—the ear in music, the sense of colour in painting, the eye for graceful forms in sculpture, and so on. Next in point of importance is the Executive organ, which nature and cultivation must combine to render delicate in the meaning above explained. A good natural Retentiveness proportionably shortens the labour of acquisition, and therefore enables one to mount up to very high and elaborate combinations. Lastly, the special Enjoyment of the

work, which does not necessarily go along with the other requisites, prompts that steady application of the powers without which no great success can ever ensue.

To be a good Architect, Sculptor, Painter, Actor, Orator, or Literateur, after foregone models, no endowments are called for but such as may be included in those four heads; only, in some of the Arts, the Executive and the Sense are more complicated than in the instances now given. An Orator combines musical articulation and dramatic gesture—the Actor's province—with flow of words and well-chosen ideas, which demand an extensive series of intellectual acquisitions, both in language and in things. Not only must the Executive be made up of many contributing elements, but the Sense is a highly educated and *artificial* product; it takes great experience to feel the difference between a perfect and imperfect pleading at the bar, or parliamentary harangue, not merely to know whether the speech has succeeded, but to know exactly in what points it has failed. A good master may initiate us more rapidly into this discrimination, but we may also be disposed to it by nature. I do not undertake here to analyse the constituents of that higher element of intellectual Taste whereby the method of composition in oratory, literary art, or scientific discourse is governed. We cannot in this instance refer at once to a primitive endowment sharpened by practice, like Tune or Colour; we must have a certain basis of acquisition before even discrimination can begin, and there are some minds that seem as if they never could be taught to see the *lucidus ordo* of a narrative or a piece of oratory, or the logic of an argumentation, while they are still capable of acquiring the raw materials of the composition. No mere tyro can appreciate the masterly arrangement of a speech of Demosthenes; whatever name we give to this susceptibility—Discrimination, Sense, Taste, Judgment—which all at bottom mean pretty much the same,

it is a thing of slow growth in all minds, and apparently impossible to some who may have read and heard, and perhaps got by heart, many good speeches. Yet until the sense has been attained, a profusion of the best material stored in the memory, the most ample executive, will not make an orator.

Perhaps some light will be shed upon this higher Taste by the remarks now to be offered on the subject of Practical or Business Talent, where the same artificial sensibility also enters. The Business man needs to have all the four essentials of the artistic mind, although these require to be somewhat modified in statement to suit his case. The Executive is now no longer mechanical skill, but the application of knowledge to certain ends, and the point to be explained is, by what natural aptitudes of the mind he becomes possessed of this knowledge—is it solely by Intellect, to which we refer in a general way, the knowledge-getting faculty; if so, what is the difference between it and other knowledge?

I apprehend that, in accounting for the Business mind, we must fall back upon the account already given of the prudential aptitude. We have seen that a prudent man carries with him a lively and abiding sense of the evils that are in his path, and of the pleasures that he is anxious to secure, as an imprudent man is he that forgets both the one and the other. It is not spontaneous energy that suffices either for common prudence, or for the ends of a business profession, but directed energy; so it is not miscellaneous acquirement, or an intellect amassing stores of all kinds, but a certain specialized direction of the intellectual resources that goes to success in the same endeavour. The first thing to be known, and remembered, are the evils that have to be obviated, whatever these may be, whether the natural evils of bad work or the artificial evils of a master's displeasure. To be readily and indelibly impressed

with an evil once experienced is the very soul and genius of a practical man. Having once made a slip, a wrong step, an omission, and having seen the bad consequences thereof, to remember the pain of that moment for ever after, is the best memory that we can bring into business. It is this memory that is the principle of selection of true business knowledge, namely, the knowledge suited for avoiding failures, which is another name for gaining ends. We shall meet a man who has once acutely suffered the pain of being unpunctual, and bears the recollection of it to his dying hour; that man will not be often unpunctual. Another may suffer the same pangs at the moment, but forget everything next day, his mind being so incoherent on the subject of pains, that they have no force after the reality is gone. Now business, and prudence, and conduct in life imply, before all other considerations, a well-remembered experience of the pains and evils that one is liable to; this is the inducement to do whatever can be done to prevent them, and to apply both knowledge and energy for this purpose. A moderate intellect for knowledge is not fatal to business; what is fatal is a moderate recollection of pains incurred, and about to be incurred. To be 'tremblingly alive all o'er' to the hundred possibilities of failure, of mischief, of disaster, will make a man turn what knowledge he has to the best account, when another man with overflowing stores turns them to no account. It is at the points where we let slip from the intellect probable sources of danger, rocks ahead, that we are unbusinesslike. The hundred eyes of Argus are eyes for coming harm. A great practical mind sees the difficulties, because it remembers bitter experience forgotten by others, who may have also passed through it. Of course, it is to be supposed that we should *feel* in the first instance: people differ very much in their original sensibilities, what gives great offence to one giving none to another; and no man will work to ward off what is no

evil to him when it comes. But the vital thing is to retain a good impress for after times of whatever afflicts us in its actual presence; so that, when the occasion is about to be repeated, there may at least be present the *motive* of avoidance, with which comparatively *small* ability may go some way, and without which no amount of ability will be of any service to its possessor.

There are, then, two very different elements in the business intellect: the intellect for good and evil, on the one hand, and on the other the proper knowledge-intellect, which refers to the means and resources for securing the ends. This last must not be wanting, although we can better afford to have it feeble than to have the other feeble. A great seaman like Nelson must have, in the first instance, that sense of possible evil at every side, that circumspectness which casualties do not surprise. In his death-agonies he could notice the rope that had to be restored, and give the orders to anchor, so well justified by the consequences of neglect. To combine this Argus susceptibility to possible mischief with a dashing courage, so often fed at the expense of the other, was the distinguishing greatness of Nelson, no less than of Wellington. This was the high practical sense, the knowledge of good and evil. It behoved these men, also, to possess a certain amount of the intellect for common knowledge, for language, and for outward things, and for all pertinent book-instruction. To be a good seaman, one should not merely mark and remember every hazard that may befall the seafaring life, in commerce or in war, so as to be always ready to anticipate such when the circumstances come round; one should also have a good verbal memory, to keep a hold of all the names belonging to the occupation, to recollect all the orders, directions, and instructions that are conveyed in language, which is obviously an element of cleverness in this as in most other professions. One should likewise

have a good eye and memory for objects, or things seen, so as rapidly to discriminate, and quickly to store up, all the appearances connected with the working of a ship or of a fleet. The element of observation, including the eye for colour, form, size, distance, as marking the character of outward objects, should be strong in the young Nelson, if he would possess resources to correspond with his keen sense of evils. What in its highest development would make a great Naturalist is useful in moderate proportions to a seaman, a soldier, an engineer, and most other practical professions. We can hardly expect these men to carry pure observation to the utmost length, because that could only be at the expense of the special observation of the *ends* of their craft; but they will amply reap the fruit of being fair scholars at school, and tolerably sharp in taking notice of what passes around them. The boy that can remember his grammar-rules will also remember the language that conveys information, instructions, and orders relative to his conduct on shipboard; although it would be a poor prognostic of his rise to greatness if languages were his only acquirement. Even high science may leave a man very stupid for practice; the non-appreciation of the ends, principal and subordinate, that are the essence of practical life, renders the best knowledge worthless. It is this lack of the susceptibility to ends, to the evils to be avoided, and the good to be compassed, that we denounce as the want of *common sense*, which may concur with intellectual brilliancy. The knowledge of things is but an adjunct to the knowledge of ends. The physician aware, in the first instance, of all the dangers his patient is liable to, should then from his other knowledge select the best means of obviating those; but though he had the whole *materia medica* by heart, he would not be nearer his mark if he knew nothing of disease; and this is essentially the Fall-gotten knowledge of good and evil impressed on him

through a susceptibility of his mind, altogether distinct from the acquisition of Natural History and Chemistry. To remember well the pains and the moments of relief of all the sufferers that he has witnessed is the first requisite of a physician; to couple these with their attendant circumstances, and store them up too, is a farther extension of the practical intelligence. On this foundation he ought to build a store of Nature-knowledge (*Materia Medica*, Chemistry, Physiology, &c.); of Book-knowledge (the summary of other men's experience); and of Logical acumen (to ascertain cause and effect in the multitude of concurring appearances in disease). As a man prudent for himself should remember adequately all his own pains, so a man skilfully prudent for the sick, should remember all their pains and weaknesses in the first instance; his head should be more full of misery than the box of Pandora, and his only solace should be the Hope at the bottom. If we would test a young man's aptitude for the profession of physic, we might question him upon all the ailments that he has undergone, and the cases he has witnessed by chance in his family circle. A spontaneous recollection of the minutiae of those cases, and of the remedies and treatment, would prove an aptitude for the subject-matter of medicine. It is patent to any one's notice that the stupidity to ends is quite as prevailing a form of intellectual imbecility, as the want of common observation and the inaptitude for book-knowledge. It is a singular, but a genuine, distinction among men, that one should keep a tenacious hold of emotional elements, of the pleasures and pains that he has passed through, and that he has witnessed others pass through; and that another, letting all that slip, should remember music, words, landscapes, birds, plants, and all the detail of the face of Nature, which the first is perhaps oblivious to.

It may now be seen how the higher Taste, or Judgment,

in Art, may be evolved, and from what original source. An artist's business is to cater for Pleasure as his chief end ; a business man may be said to be mostly engaged in avoiding pains. The physician, the lawyer, and the magistrate would have no function but for miseries that we are constantly incurring. Now the artist, while assembling as many sweets as he can command, soon finds that these have their side of bitter ; if badly assorted, or too much prolonged, they lead to a class of pains of a new description, best known to the devoted pleasure-seekers. His next business, then, is to be well aware of those pains, just as a seaman must know effectively all the risks of his trade. This is artistic Taste in the higher acceptation, wherein great artists may be often deficient. They flow out in luxuriant abundance, not exercising a good selection of sweets in the first instance, and not avoiding the point of excess or satiety in the next. Here, too, the genius and the discipline of pain are put in requisition. The taste of a Gray or a Tennyson is born of this sensitiveness to the thorns that come with poetic roses ; the elaborate method of Demosthenes was arrived at by a series of experiments of effects missed, and was not a primitive sense peculiar to his own genius. Pain is the tutor of the practical man, simply because his practice is all for the avoiding of it. A great diplomatist is in chief part made up of remembered failures in dealing with men. This is the first half of his 'experience,' his 'good sense,' his 'tact ;' the second half is the knowledge of means to steer clear of the same rocks in future.

So much for practice : let us next turn to the talent for Science. In discussing the Phrenological organ of Causality, the mode of resolving the scientific intelligence came under discussion ; it remains here to illustrate the matter more fully. One would naturally suppose that in science we have the purest product of Intellect strictly under-

stood ; and consequently, that we should trace it to a peculiar combination of the three great Intellectual powers, Discrimination, Retentiveness, and Similarity. We ought to be able to assign some Local susceptibility,—something in the eye or other sense,—where the material to be worked upon is imbibed, and which, with the addition of the General powers, would account for the whole effect. By such a combination, with the requisite emotional sensibilities, we can account for Mechanical skill, Artistic execution, and even the higher Practical talent (saving where that takes in Science) ; and we are now to try the same method with this new case.

The Phrenologists gave themselves a wider basis of explanation than what is here assumed. In such an organ as Number they had something besides a sensibility of one of the Senses—as colour or form,—they had a special application of a sensibility, namely, that of Form, to the case of numerical calculations. I do not admit any such assumption as a primary or ultimate fact of the mind : if I did, I feel I should be obliged to have many more ; for, as some great numerical calculators have failed in Geometry, it would be equally requisite to have a separate faculty for the sense of Form applied to this also. As at present advised, I concede no ultimate elements of Intellect, except the discriminative sensibility of the Movements and the Senses, and the general powers so often mentioned, namely (in addition to Discrimination), Retentiveness and Similarity. The Senses that furnish the greatest amount of matter to the intellect being sight and hearing, we must seek chiefly in these for the primitive material, the original impressions to be worked upon ; and for the present purpose, it is manifest that the visual impressions are by far the most important. In the more abstract sciences, as Mathematics, the sensible elements are almost exclusively visible forms, which, being also expressible in audible

speech, derive a certain additional hold on the mind through the sense of hearing. It would appear then, that, whatever else is implied, a mathematician should have an eye for forms, and should discriminate and remember those with facility. But will the discrimination and memory for visible symbolical forms, with a power of recalling them through Similarity, make a Mathematical mind ?

I answer, no ; and for this reason, that the very same aptitudes are equally involved in a faculty totally different, I mean the power of languages, when learnt not through the ear, but by the eye. M. Stanislas Julien, the great Chinese scholar, and Mr. George Bidder, first known as the 'Calculating Boy,' are equally dependent on their hold of arbitrary visible forms : they must be alike discriminative and retentive of many such ; one apparent difference being that the one has to remember many thousands of distinct forms, and couple them with the corresponding forms in the mother tongue, and the other remembers many different combinations of few primitive forms. But even this distinction does not hit the case, for it equally expresses the distinction between the Chinese language and an alphabetical language like English or French, and does not amount to the far more radical difference between lingual and mathematical acquirement.

In the following chapter, devoted especially to the subject of Genius, the intellectual force of like recalling like, will be shown to be especially required for the scientific faculty in every department. It will be seen, that while large Contiguity is necessary for the mastering of numerous unconnected details, such as the mere vocables of a language, or the objects of Natural History, it is of the nature of Science to comprehend many resembling particulars in the sweep of one principle, or formula, and for this purpose the power of easily discerning similarities is of great consequence. We cannot finish the discussion of the intellectual founda-

tions of Arithmetical talent till that power is fully before us. But there are certain *emotional* characteristics that enter into the question, as between M. Julien and Mr. Bidder, and it may be well here to advert to these.

I have already shown the importance due to the *absence* of certain susceptibilities, in order to constitute a scientific mind, being chiefly those that develope themselves into Fine Art, as, for instance, Colour, and the attributes of Form that belong to Art. There must be a penury in these respects, in order to permit the forces of the intellect to be concentrated on the more arbitrary characteristics that merely serve to distinguish one form from another.* And farther, there being a deep estrangement between the artistic and scientific aspects of the same natural phenomenon, the application of the mind to scientific requires the artistic to be kept in abeyance; so that, in fact, it had better not exist.

With regard to the positive influences of a special emotion in giving a direction to the Intellectual powers, I may quote from Mr. Bidder's own account of the origin of his Arithmetical faculty. Remarking on the point of this being a peculiar power in which he stood singular, he says:—'I have endeavoured to examine my own mind, to compare it with that of others, and to discover if such be the case; but I can detect no particular turn of mind beyond a *predilection for figures*, which many possess almost in an equal degree with myself.' He then relates how, under the influence of such a predilection, he gave himself up to the study of numbers, learning first the ordinary multiplication-table by making lines and squares of peas, marbles,

* An exception to this is the head for Perspective, which connects itself with the head for Geometry. Leonardo da Vinci was an original and skilful mathematician. Still I have no doubt that anything like devotion to the scientific point of view is adverse to the free outgoings of the Artistic mind.

and shot; and then enlarging upon this until at last his own multiplication-table, actually in his memory, rose to a million (Smiles's *Self-Help*, chap. iii.). Now it is apparent that a tenacious recollection of forms and figures as such, principally as visible in the ten ciphers and their combinations, must have been at the basis of this faculty,—the intellectual condition or starting-point, in whose absence the most intense predilection would have produced merely ordinary results. And if so, it seems not improbable, that if Mr. Bidder had been so constituted in his emotional sensibility as to take an equally strong interest in the Chinese characters, devoting his days to copying them, combining them with their English meanings, and storing them in his memory as he did his *millionaire* multiplication-table, the fifty or eighty thousand words of that language might not have been too much for him, and that he might then have been the rival of M. Julien. Thus a common intellectual aptitude in the shape of discriminative sensibility for arbitrary skeleton forms (the local power), and great retentiveness (the general power), would be at the bottom of these very diverse gifts; and the determination in one way would not lie in any new peculiarity of pure intellect, but in the emotional susceptibility that gave the strong bent to occupy the mind in that direction. The only consideration that stands in the way of this inference, is the probable need of a good power of similarity in the Arithmetician, while undoubtedly in a Chinese scholar this may be of the lowest order, there being nothing to class or identify, and the great demand being for a retentiveness that is inexhaustible by any amount of unmeaning detail.

If feeling thus goes a good way to explain the distinctive origin of the scientific aptitude, we may naturally wish to probe the depths of those peculiar emotions, or that strong interest, or taste, or 'predilection,' that the abstractions

and symbolical forms and theorems of science can stir up, and which being naturally powerful in any man, gives the bent to the employment of whatever intellectual force he may possess.

To a mind of average make, there is much that is distasteful, not to say repulsive, in the dry, hard, cold formulas of Algebra or Chemistry. The meaning and power of them are not at first comprehended by a beginner; but after going a little way, these gradually disclose themselves. Even in mere numbers, a charm is soon felt by the variety of modes that the same sum can be resolved—the plurality of factors in the same product. To see how many ways a certain number, as 48, can be made up (6×8 , 4×12 , 3×16 , &c.) is an interesting occupation, the point of interest being the discovery of unexpected similarities, which enters widely into the charms of science. The symmetries, harmonies, and proportions that can be struck out in the manipulation of numbers, and that appear more and more in the higher mathematics, affect some minds deeply, and the more so that such minds are wanting in the sensibilities that would draw them to poetry and art. But a far more impressive effect is produced when it is seen how *comprehensive* these dry formulas are; how much they give in little. Hundreds and thousands of facts that would have to be learnt in wearisome detail are imparted at a stroke, if we will only consent to master scientific language. After extracting roots in detail, we are delighted to see how the operation can be stated once for all in the binomial theorem, while that can be swallowed up in theorems still more comprehensive. If we can only but enter into this arduous career, the power that we obtain of stating and explaining the order of the world keeps up our interest, by appealing to a fundamental satisfaction of the human mind, the accomplishing of large effects by little means. Even in the very threshold and elements of science, glimpses of this

powerful agency disclose themselves to detain the youthful mind. If the purely intellectual force is present in sufficient quantity—the memory for arbitrary forms and for their meanings and associations,—so as to enable one without much difficulty to learn the marks and symbols, the interest now adverted to, on becoming distinctly apparent, will secure a devotion of the mind that will complete the scientific aptitude. It would be a mistake to suppose that the scientific predilections could flourish in a lean intellectual soil ; the local susceptibilities and the general force of retention must be there in goodly proportions. Even an arithmetician must have in him the elements of a tolerably clever person ; and no one can be a high mathematician, or a great physiologist, without very considerable intellectual force, such as, if determined by a different order of predilections or tastes, would have conferred a marked superiority over the ordinary run of minds. The handling of abstractions, which are in themselves nothing, but yet can represent a vast range of actual phenomena, demands a full share of the elements of the intellect proper ; for an abstract idea results usually from the scrutiny of many examples, which must have been observed and remembered, in order to that effort of comparison that brings to light their common property ; the abstract idea of a metal being what is common to all the metals, these should be known in detail in order to furnish the general description. Now, if every abstraction that a scientific man deals with has to be adjusted by an appropriate number of facts, the mere memory for such facts must be powerful and abundantly stored, a thing that cannot be in a mind intellectually feeble ; although it is equally true that great natural force may not flow in this precise channel. It is, therefore, this capacity to comprehend and explain the vast and complex order of Nature, that must be looked upon as the soul of the scientific predilection. Even fanciful ex-

planations could give an interest to scientific pursuit in the minds of Plato and Aristotle. When once seized with the desire of unravelling and accounting for the phenomena of the world, the employment of the intelligence for that end follows as a matter of course, unless discouraged by insufficiency of power. The different sciences have their several points of attraction, according to the varying susceptibilities and caprices of the individual mind. But there remains at the threshold of all the great fundamental Sciences—Natural Philosophy, Chemistry, Physiology, &c., as distinguished from Botany and Zoology—the prohibition set up by Plato against the incapacity for mathematics; if a pupil breaks down in Arithmetic, he must be wanting fundamentally in power, or in predilection, for science generally. The chief exception to this would be in Natural History, where the actual objects of nature, rather than abstractions, are the matter of study.

The applications of science to Practice, so abundant in these later times, are a motive to pursue it, although second to the other, which may be called the more intrinsic interest, in whose absence scientific knowledge could never have been got forward to the stage of practical utility. Yet this last stage is one of great importance even in the speculative point of view, for it brings into play more decisively the process of *verifying* theories by actual trial. The working up of Astronomy to the pitch of accuracy required in navigation, could not have taken place while any wild and hypothetical speculations, such as the Cartesian vortices, or the Aristotelian notion of perfect figures, adhered to the subject. The sentiment of the love of Truth, reposing, in the first instance, on the absence of inconsistency, is finally completed by the satisfaction accruing from what answers the ends of life, and by the repugnance to whatever, pretending to do so, signally fails.

CHAPTER XV.

GENIUS.

IN the foregoing chapter, I have treated of intellectual ability of a high order, without supposing that special mode or degree that goes by the name of Genius. It becomes us now to ascertain some precise signification, as properly attaching to this term of lofty eulogium, and then to see what are the foundations of it in our mental constitution.

Like so many other names of mental qualities, this word has a considerable diversity of meanings: In the first place, it may imply nothing more than the special taste, leaning, or department of an intellectual worker ; as when we say such an Artist's genius lay towards the sublime, or the picturesque, or the humorous; or a scientific man's genius was more in experiment than in speculation ; or, if a practical man, he had the genius for organization, or for influencing other men, or the like. In this application of the word there is supposed a certain degree of intellectual aptitude, but it is not the power so much as the department, or kind of it, that is taken into view.

Again, the name sometimes refers more exclusively to Fine Art, or to the works of Imagination properly so called, as opposed to scientific and practical creations. We are more accustomed perhaps to hear great poets termed men of genius, than great philosophers, generals, or statesmen. The effects that an Artist can produce are so immediate, so striking, so universally felt, so essentially of the nature of pleasure imparted, that they are more easily and

thoroughly appreciated than the labours of those that merely contribute, perhaps in a manner not very apparent, to ward off evils. Hence the general public are more ready with their epithets of admiration to the poet, painter, or sculptor, than to the Geometer, the Chemist, or the Political Economist.

The third meaning that I would specially advert to is, I think, the most appropriate of any, as it refers to a more fundamental and important agreement among the things denominated by the name, than the two former, which, in comparison, are but casual significations. I refer to the power of Originality, Invention, Discovery, Creation, as opposed to the mere mastery (no matter how skilful and effective) of what has been already known. I have used the name Talent to signify the aptitude for following any vocation, according to the existing and established rules, and for doing that well. It takes no small intellectual force to be a successful lawyer, politician, orator, teacher, philologist, man of science, &c., but the force that gives a mastery over beaten tracks must always be put in contrast, more or less, with the power of origination. There is, in fact, a difference of *disposition* among men in this respect, apart from capability: it is the tendency of some minds to hold to the established routine, even although possessing intelligence enough to be original; and it is the tendency of others to affect originality, with altogether inadequate means. The existence of this disposition will count for something in the result; and I shall therefore make a few remarks upon that in the first place, which will also afford an opportunity of bringing to light an important and prevailing difference in men's characters.

A properly intellectual mind takes in and lays up knowledge from any quarter. It matters not whether the source be its own observation and reflection, or the communicated observations and reflections of other minds. This is the

true spirit of curiosity and inquiry. There is, however, a pretty numerous class, who have the greatest reluctance to imbibe knowledge as simply imparted by teachers, books, or informed persons ; their interest is not roused unless they can conquer it for themselves. The facts that *they* gather, the conclusions, opinions, and generalizations that *they* form, are what clings to them ; anything presented in the guise of communicated information hardly finds admission into their store. The grounds of the character are not hard to make out ; it is a preponderance of active energy over intellect proper. Mere knowledge, as such, is not acceptable without the superadded charms of active exercise and self-gratulation. Such minds have a strong bent towards originality ; if they can discover nothing actually new, they are still discoverers of the old. But it is hardly possible to indulge this tendency without occasionally discovering the new, although it is not to such minds that the highest revelations of advanced truths are made. Their intellectual basis is too narrow to support a structure of first-rate dimensions. They read and listen not to derive information, but for the confirmation of views independently arrived at. In controversy they have the defect of being unable, morally or intellectually, to comprehend an opponent's point of view, and hence a question is not much furthered by a debate with them. It is often laid down as a maxim in the art of teaching, that a pupil should be put in the way of arriving at a truth by the employment of his own powers, instead of receiving it passively from the master ; but the necessity for such a plan only proves the low intellectual standard of human beings generally. An intellect of the right sort can appropriate instruction, without the stimulus of this compliment to its own powers.

So much for the love of originality for its own sake. There are various other motives and accidents that determine men to leave the beaten track, in favour of something

that is both new and *superior* to the old, which alone deserves the praise of genius. Some of those will appear as we proceed; but in these preliminary observations, I must single out one power of the intellect that stands conspicuous in all very high original genius, in the sense we are now considering. It will be remembered that three great facts, or properties, are implied in our intellectual nature, viz., Discrimination, Retentiveness, and Similarity. The first, Discrimination, is essentially local: no one has a power of discrimination in the general or the abstract; it is in some one or more departments of Sensation, &c., that we are remarkable in this respect. The two other powers are, in all probability, general. Retentiveness is no doubt greatest where local sensibility, as shown by discrimination, is greatest; but we have reason to believe that this may be a general characteristic of the mind, and when it is so, extent of *acquisition* is the consequence. In fact, it is the occasional existence of the tendency to large and various acquirements, that leads us to assume Retentiveness as a quality unequally manifested in different minds, and therefore a proper basis of the classification of character. In its utmost developments, this power exactly corresponds to what we have named Talent, and put into contrast with Genius, being the power of taking on at all hands whatever is brought before us. Whether it be to learn handicraft manipulation, to store up every kind of knowledge, to master routine avocations, or even to receive the mould of new habits and dispositions, there is implied a plastic property, a rapidity in taking the set of communicated impressions, which is what is meant by the term in question. On some one remarking in presence of Wellington that habit was equal to nature, he replied, 'habit is ten times nature;' a strong expression, not applicable to all constitutions, but true of some, perhaps of the Duke himself, if we are to judge from his making the remark. Now

if genius have any peculiarity of meaning, if it be not identified with cleverness or ability of every sort, we must oppose it to acquirement and routine. And it will be found that it is in the *third* power of the intellect, and not in Discrimination or Retentiveness, that a tendency exists to break through the formulas of use and wont, and bring together for the first time things that lay far remote before.

The principle named Similarity has long been known as a law of the human mind; but it is only of late that any one has adverted to it as constituting, by its variations of degree, a trait of character. It was seen by Aristotle that, in reviving ideas or experiences formerly possessed by us, one link, or medium of restoration, is a *likeness* of those past states to some one now actually present; as when a copy recalls an original, or a child reminds us of the parent that it resembles. And when closely investigated, it appears that the important instances of the operation of similarity, in resuscitating former experiences, are those where the likeness is accompanied with unlikeness, which unlikeness is a bar to the stroke of recovery. It is then seen, that some minds are distinguished by their power of breaking through this barrier, so as to make out an identity undiscoverable by other minds. The reach of the identifying stroke, which recovers from the past the whole range of objects having any resemblance to what is before the view, or in the mind, at the time, is a peculiarity of the intellect radically distinct from both Discrimination and Retention. When this is feeble, the principal power of recovery is what is called 'Contiguity,' or proximity in place and time, a link forged purely by the plastic or retentive energy of the mind. We then remember things simply in the order that they have been presented before, the order of routine, or of habitual presentation. We remember a river by being reminded of towns on its banks, of its source, or its mouth, or some historical associations; this is memory by con-

tiguity, or plastic adhesiveness. When the river rises to view on thinking of *other* rivers, the medium is similarity. So when it rises before us as a figure of speech to illustrate a series of events, or the course of history, the recovery turns upon likeness, which in this instance is disguised by accompanying unlikeness, and the force of identification and recovery is more vigorous, and of a kind more rarely exhibited. There is a certain *average* degree of this power of restoration through likeness clogged by diversity; while scattered individuals possess it in far higher measure, and always with striking results. In them the flow of words, ideas, or actions is something different from the common-places, whether the intrinsic merit of what is produced be great or little. It is certain that without a considerable reach of this identifying faculty, we cannot rise to originality of conception as the habitual characteristic of the mind; there is no other principle of the intellect as yet enunciated that would bear this species of fruit.

Having in another place (*Senses and the Intellect*, book ii. chap. ii.) illustrated, with the greatest fulness of detail, the workings of this principle of like recalling like, through the disguises of diversity, I will not undertake to repeat the exposition here. But as I consider it quite impossible to afford any explanation of intellectual originality, except on the supposition of an unusual energy on this point, I am obliged to give an intelligible account of the principle, so far as space will admit. This I count the *leading fact* of genius, while there are other subsidiary peculiarities, not without their value, and in some of the departments perhaps taking precedence of it. But the remaining illustrations of the subject will fall better under the three divisions of intellectual ability, already followed in discussing talent—Art, Practice, Science.

It is in the *Literary* Fine Arts that the purely intellectual elements are conspicuous. If we begin at the other

end of the scale, and take, for example, Music, it may be doubted if even originality reposes principally upon the highest function of the intellect. I should rather be disposed to assume, as the first condition of an original composer, the element of *superior sensibility*, of a discrimination and delicacy of sense above what is common among musicians. A new sense, so to speak, will of itself determine new creations in accordance therewith; the materials for these being sought out everywhere, from existing compositions, from random attempts, and chance suggestions. An original sensibility brought to bear on the works of former composers, will, by rejecting, re-arranging, and adjusting, produce entirely new effects, without supposing that there is any special force in the mind for concocting fresh melodies. As the taste is the ruling element in Art, any remarkable advance in that, even a deviation from the prevailing susceptibility, will cause a demand for an altered style to gratify it. Given the original acuteness or idiosyncrasy of sense, an ordinary musical education will supply the power; aided, no doubt, by a good retentive faculty generally, but not very obviously bringing into play the principle of like recalling like through remoteness, although neither is that principle excluded. Such is the view that seems to be most probable in accounting for the musical genius of Handel, Mozart, Beethoven, or Mendelssohn.

In Painting, nearly the same importance must be attached to originality in the sensibility to effects. An original colorist has got from nature a superior natural feeling for colour; this fact alone would be the cause of novelty of execution. But as Painting involves a more intellectual order of conceptions than music, a greater amount of intelligence than painters usually possess, joined to the average sense of effects, would enable one to take a start in advance. The introduction of expressive and sug-

gestive particulars into a picture proceeds from intellectual resources, or from education, observation, and the two forces of Retentiveness and Similarity combined. We can hardly conceive of Michael Angelo otherwise than as raised above other painters, by the greater reach of his intellectual forces, properly so called ; while Raphael, and many others whom I will not undertake to specify, owed their genius to superior natural sensibility to the effects of the painter's Art. One must never omit to allow for the distinction that uncommon *energy* may eventually confer upon the man of merely common endowments—a remark that applies to every form of human greatness.

I pass over Architecture and Sculpture, which might be treated in an almost parallel way. In both, the intellect is of importance as supplying materials to be subjected to the decision of the artistic sense. But it will be of some use, in illustrating artistic originality generally, if we study for a moment the genius of the actor on the stage. As in all the others, we must suppose an acute natural sensibility, and if this is passing great, the results already indicated will follow. But here the stress of the originality may be laid upon a quite different circumstance, namely, the idiosyncrasy of the actor's framework, a thing not only out of the sphere of intellect, but out of the sphere of any mental quality whatsoever. A form of person more than ordinarily beautiful, majestic, or even comical ; spontaneous movements remarkable for emphasis, or for some other effect which they produce without intention ; vocal power—these may all be something distinct from, and superior to, what is commonly met with. Unconscious gifts of person may thus do far more than mental endowment, while they are an enviable basis to work upon when the other elements concur. Now, what is so obvious in the genius for the stage, and in the fascination of natural beauty off the stage, may be also a cause of originality in other Fine Arts. A musician may

have some spontaneity of vocal effusion that to the ear has both novelty and charm ; this would be to him the hint of a new melody, a new idea as it were, in much the same manner that a painter finds ideas among casual forms of nature. So a cadence in verse may be suggested by some quite unconsidered outburst of utterance, the natural form that impassioned speech takes in an individual mind. The sense being present to take advantage of these accidents, we have, as the fruit, a new pleasure secured to mankind.

To come to Poetry. Here everything is implied that has just been stated with reference to the other Arts. Certain strong sensibilities to some, or all, of the effects denominated poetical, must be at the foundation, to determine not only the poetic execution, but also the previous storing of the mind with apt materials. Thus, to take the case of Lyric poetry or song, where a certain bold, melodious, and impressive metre is the first characteristic. No man can compose songs without having, in the first instance, a strong susceptibility to the metrical cadence ; not merely a pleasure in it, but a pleasure bound up with delicate discrimination, and accompanied with strong retention in the memory. It is this firm recollection that enables one to compose in it, by the proper choice and adaptation of language and thought. The materials we derive from our stock of words, no matter how acquired ; although the strains of language that have already a metrical form, being found in previous compositions, will easier take the form again. As a matter of course, the memory stored with poetical compositions is best fitted to draw upon in new attempts. But let a man have an intense ear for metrical form, shown in a strong abiding presence of the examples of it, and he will, out of his recollection of prose, cast words in the metrical mould. Should he have a surpassing sensibility on this head, he has a chance to

devise new and superior cadences, being all the better able to do so if he is also largely versed in language.

The illustration is the same for any other poetical sensibility. A poet may be original from his greater depth of feeling for some particular of poetic effect, or by greater intellectual resources with merely ordinary feeling. The intellectual resources depend on the general forces of the mind, coupled with the opportunities of acquirement. Language is indispensable in the first instance; a copious memory for words a poet should have in common with a scholar. Next is the pictorial eye, the endowment shared with the painter. Strong discriminative reception of colour and form, the basis of the vivid hold of nature in the concrete, gives variety of images and conceptions suited to enter into every kind of poetry, being in some kinds the principal substance, and in all kinds the adjunct. But this intense observation of the outer world should be governed by poetic feelings, so as to make the proper selection, otherwise the acquirements will be so miscellaneous, as to contain but little of what is really applicable. The beautiful, the picturesque, the sublime, the pathetic, the humorous, should be preferred; and when those susceptibilities are keen, the preference follows, and the merely useful or scientific is neglected. The same selective appropriation applies to reading and study. In this way the poetic mind is furnished with stores of images and thoughts adapted for its purposes, and recalled in the act of composition. The human feelings are also an element of poetic composition, for which one's own experience is the primary source; but the observation of other men is still better, for this reason, that it is the *embodiment* of feeling that the poet has to do with, and in himself he has it as it were *disembodied* and therefore useless, until it first pass into that expression which it already has when viewed in a fellow-being. So that even the poetic eye for human feelings should be still

an eye for the outward, rather than the introspective consciousness.

The analysis of any great poet would show these elements in detail. The critical examination of poetry usually discriminates between the sensibilities and the resources; while under either head we may note wide varieties in individuals. But I have laid it down as a maxim, that while the quality of Retentiveness must be high, as well as directed to the proper objects, in order to furnish a poetic mind, this alone would not produce great original works, without an unusual endowment of Similarity. An induction of the greatest literary names of all ages would establish this assertion beyond the possibility of dispute. Shakspeare alone would suffice for the proof. It is this power of bringing together things that lay remote before, but possessed a likeness sufficient for their identification by him, that strikes us more frequently perhaps than any other peculiarity of his genius. Other intellectual forces he had : a strong retentive glance of whatever he encountered—most retentive when his peculiar feelings were acted upon (and he had his own peculiar feelings, which may be discerned in his style)*—implying both local endowments and the retentive brain in general; but these would have done little but for his having, in an unparalleled degree, the power of bringing up far-fetched resemblances. What are the metaphors, similes, comparisons, allegories, illustrations of every poet, but strokes of the faculty of like recalling like; and who comes up to Shakspeare in the profusion, the originality, the felicity shown in this particular department? These are the obvious instances of the power; but

* See the very interesting essay by Professor Masson, on Shakspeare's personality (*Essays on the English Poets*, p. 13), where irrefragable evidence is adduced in favour of certain characteristic veins of feeling inherent in him as a man, and apart from his dramatic faculty of assuming other men's sentiments and views.

there are many thoughts and conceptions which do not show it on the surface, but when analysed, are seen still to depend on the same identifying stretches. And having made ourselves familiar with the fact in the greatest example, let us turn to almost any other poet or literary genius, and we encounter the same thing in every page; Milton is the second in English Literature; Chaucer, Spenser, Dryden, Pope, will occur at once. In prose, too, a writer may be tasteful and copious; but if he is original and felicitous, it is his power of comparison that makes him so; witness, Bacon at the head, Jeremy Taylor, Addison, Burke, Macaulay, and indeed, the whole host of celebrities in literature properly so called. The region where this power is manifested is necessarily the region of a man's peculiar acquisitions; Shakspeare never made a simile from Euclid, or from Thomas Aquinas, notwithstanding that his range seemed to know no bounds.

The Genius of Practice is essentially comprised in what has been said under Practical Talent. We have merely to add to the power of Circumspection, or the precautionary foresight, an inventive faculty, the account of which is common for practice and for science. Properly speaking, the genius for practice should be a more than ordinary reach of circumspection, judgment, and active energy in applying known resources to obviate known evils. We find very generally, that an original and inventive mind spends itself in multiplying contrivances, which other minds bring to bear on the conduct of affairs. No men ever did more for political improvements than Adam Smith and Bentham; but neither belonged to the class of practical men in the proper sense of the word, namely, as concerned in, and responsible for, the actual administration of the government. It is better to include those original thinkers among men of science, and give the title of men of practice

to Burke or Pitt, Canning and Peel, Wellington and Nelson, and to our great lawyers, merchants, engineers, surgeons, public teachers, and so on. An original statesman finds enough to do if he take up suggestions from all quarters, and adapt them to meet existing evils, or to extend the sphere of beneficial legislation. To him belongs the clear view of the disease to be remedied, and of the effects that this or the other application would produce; he should be able to judge, from his extensive acquaintance with cause and effect, in political matters, whether any new evils would result from what is proposed. It is quite enough for one mind to be conversant with all the peculiarities of the patient to be treated, the discovery of the *materia medica* may be left to a different class of inquirers.

Although, therefore, history has presented us with inventive minds in the actual management of affairs, such as we may suppose Solon and Pericles to have been, if they were really the inventors as well as the introducers of their own state devices, and such as we know Turgot to have been; and although among our own contemporaries, there are men distinguished both for original suggestions and considerable judgment in applying them, I believe a close inspection of characters would show that in every such case the decided leaning is to one side; and if so, there can be little hesitation as to the side that should receive the designation of talent, or genius, for practice. An entirely original grasp of evils to be met, a more tenacious hold of them in the precautionary memory, and a consequent greater alertness in dealing with them, and in knowing what will answer the purpose,—would be my definition of practical greatness. Intellectual resources of a good ordinary compass, drawn upon under a pressure of this description, would issue in solid improvements, or in successful administration in trying times. A Wellington, who added nothing to the machinery or the tactics of war, was still a military genius. His precautionary intellect ranged so far beyond the limits

of a commonplace commander, that he was a genius in practice, although not in science. But perhaps no man has illustrated practical greatness so fully as Cromwell, whose position gave scope in every way for this quality. He was most emphatically a man of practice. His mind was constituted on as large a scale as any man that we can name, and no part of it went to Fine Art on the one hand, and a very little (although that little had its worth) to speculation or abstract science on the other. So much mind, so decisively concentrated upon actual business concerns, we are not to look for many times in a thousand years. That part of the intelligence occupied with the recollection of good and evil, in the infinity of their possible manifestations, attained in him to the maximum possible to human nature. We see it from the first moment of his public career, when he entered on military service in the Eastern Counties Association. In his management there, in which lay the germ of the ultimate triumph of Puritanism, we see nothing but extraordinary alertness in using the ordinary means to compass the ends of the war. There is nothing of that ingenuity of device, those cunning surprises, attributed to Garibaldi in his romantic career. There is the ever-present sense of an enemy to be encountered, and of all the ways that it is possible for that enemy to operate, and a consequent energy of preventive volition. He himself confesses, as a sort of apology for setting his machinery incessantly in motion, that he is, perhaps, a little over-anxious about things. He is a man to be satisfied with nothing but success. His religious theory was, that Providence is with the right, and whenever he fails, he is full of self-recrimination; there was nothing that would soothe him under the reverses encountered in his first expeditions to the West Indies. The peculiar energy that characterized him, all his life through, is the best contrasting example that could be cited in opposition to the abundance of mere spontaneous activity; the point of the contrast was well

expressed by the phrase of a contemporary, that he could *set well to the mark*. His was no aimless effusion of strength, no mere energizing for its own sake. A career more thoroughly prudential, practical, well-directed, and therefore triumphant, the world need never expect to see.

His Sympathies were not less remarkable than his Prudence. His usurpation is becoming less and less a stumbling-block in the way of our appreciation of his disinterestedness ; while the positive evidence, summed up in the one fact of his being our greatest Apostle of Toleration, is more than sufficient. It was not in settled times, when a mild Government thinks it safe to relax some ancient restrictions, but in a life-and-death struggle that Cromwell displayed an amount of toleration that had never before been known in England. And if this was one leading, perhaps the strongest, motive for his taking arms, it is all the more to his credit as an original genius in the department of human liberty. He tolerated everything but intolerance ; in other words, he stopped short of committing suicide. If genius is understood as the promulgation of ideas beyond the age, sanctioned by their complete recognition in succeeding ages, we ought not to refuse the name to the promoter of new moral ideas, or more enlightened impulses towards our fellow-men. A superior native force of true disinterestedness must be assigned to the man who, in the midst of Revolutionary troubles, enlarges the sphere of freedom of thought and conscience, and that praise is due to Cromwell. If we would see a crowning instance, we should witness his affording an asylum to a celebrated Royalist, threatened with assassination by his own friends, I mean Hobbes, whose life presents the singular phenomenon of a philosopher and sceptic, tolerated by a bigot and maintained by a nobleman.

Intellectually, that is to say, in the region of knowledge

and ideas, as contrasted with the intellect for good and evil to self and others, Cromwell was a superior, but not a first-rate man. His mental grasp would do credit to an ordinary professional career, but would not itself raise any man to the elevation that his moral, prudential, or practical intelligence would have secured to moderate abilities in the other region. He could think and write with clearness and precision, and his speeches, with all their lumbering grammar (very much in the style of the Duke of Wellington), have their earnestness sometimes embodied in apt and forcible metaphor. Such clearness of moral vision, so to speak, such a sense of the 'mark,' gives a prodigious advantage to a man's intellect in mere ideas. People do not look at them as they would appreciate Baconian similes or the fancies of Shelley; their purpose-like peculiarity redeems them from commonplace, as when a general makes his troops perform an ordinary manoeuvre at a felicitous juncture.

My closing illustrations shall be from Science. It must now be apparent what are the elements of the scientific mind, according to my view of it. The strong natural retention of arbitrary forms, in company with the genuine scientific interest in abstractions and general propositions, is raised to the force of genius by means of the third power of the Intellect—the recognition of likeness in diversity. A naturalist may be original by traversing an unexplored field—the proof of genius is to make discoveries in a well-paced track. This deeper penetration is almost exclusively owing to the success of a superior identifying faculty. That greatest of all great discoveries, universal gravitation, implied this power in a special degree, although accompanied with other circumstances of no less bearing on the result. To see in the old trite phenomenon of a falling stone or apple, or whatever it was, a resemblance to the

deflection of the moon to the earth, it was essential that the faculty of seeing likeness disguised by unlike accompaniments should be far reaching, and it was also essential, by previous analysis of the planetary forces, to confer upon the deflecting or central power the characteristic in common to it with a falling body on the earth. Without this analysis of a planet's motion into tangential and central tendencies, there was no likeness at all between the two phenomena; after the analysis, there was a likeness, but a remote and muffled likeness, and the occurrence of the flash of identification between the two in the mind of Newton was an illustrious case of the operation of this greatest faculty of the intellect. If the long series of Newton's discoveries—mathematical and physical—were not full of the same recurring power, along with the more ordinary talent of retention of scientific forms, we should not put such stress on the fetch involved in his highest discovery; but, in point of fact, that was merely a more telling example of an aptitude, that was indispensable throughout all that he did in the way of scientific originality.

The next greatest illustration of genius in science, as turning upon the stretch of the power of Similarity, is Franklin's identification of the thundery discharge with the discharge of common electricity. These two facts in their separation had been before the minds of many men, but Franklin was the first to bridge the chasm, and see the one in the other. The truth is, that after observations have been collected, or experiments made, the scientific man aims at *generalizing* these into some comprehensive property or law, and the generalizing impetus is in its essence a succession of identifying strokes. It is not once that the power of Similarity is required to complete some great discovery—the demand for it is incessant. Every attempt to gather a few particulars under a common head,

to extend the sphere of a class already formed, so as to comprehend new individuals, has to be effected by the agency of the identifying force, and he that is wanting in this power will be so tardy in catching up likenesses, as to make no progress worthy of the name.

Sometimes we meet with men remarkably powerful in seeing resemblances, and therefore highly original in their suggestions, but singularly loose in verifying them. Such a man was Fourier. Such also was Oken, the discoverer of the analogy between the cranium and the spine of vertebrate animals. His analogical force—in other words, his reach of similarity—was immense; but, for want of a clear notion of scientific evidence, only a very small number of his analogies have proved of any value; he threw out his fancies by hundreds, and left other people to test them. In him the pure intellectual force of attraction of similars revelled, rather than worked; nothing that he suggested was true, because it came from him. He is the type of the suggestive or the inventive mind in its extreme phase, unbalanced by the consideration of the scientific end, which is, not fancies but, truth. When we study minds of this class, we are made aware that even in science, something is required beyond the highest stretch of the intellectual forces strictly so called. Great discrimination, retention, and similarity will make a vast show, a grand profusion of thoughts, images, comparisons, generalizations; but whether these represent faithfully the order of the world, will depend upon other mental peculiarities, not very far removed from the peculiarities of the *practical* mind. It is the presence of some distinct ends—meaning evils to be warded off, or good to be secured, immediate or remote—that distinguishes the genius of practice. Now, in genuine science, the special evils to be entertained by the mind are falsehood, inconsistency, inaccuracy; and according as these evils are vividly and constantly present, will be the endeavour to obtain, not

knowledge simply, but true knowledge. The difference, then, between the scientific man and the practical man would seem, after all, not to be very wide ; the real antithesis is between the intelligence simply disporting itself, and the intelligence controlled by ends. But although science and practice thus agree in being worthless, except as hitting some mark, they still differ in the fewness and simplicity of the ends in the one case, and their multifarious character in the other. Truth is a simple and circumscribed object ; it is but one solitary condition to fulfil, although a very momentous one ; whereas in any department of affairs, the conditions to be fulfilled are so various, that it is almost a sufficient occupation for the mind to keep them all in view. A statistician has merely to sum up his figures and check his returns to see that there is no incorrectness ; an administrator of poor-law, or of police, has to avoid innumerable pitfalls in every movement that he takes. Hence the man of science has more mind to spare for intellectual constructions and originality than a man of business ; he has to steer clear of the one evil, falsehood, the other has to steer clear of a multitude of evils, like a navigator in the Goodwin sands. This remark is still farther illustrated by comparing the sciences of purest speculation on the one hand, with those of pure experiment on the other. The first, such as Mathematics, admit of easy verification ; their touchstone is simple ; invention is all the labour. This is the region where the intellectual forces have their freest scope. The other sciences, such as Chemistry and Physiology, involve in their operations a more complicated system of testing, and their prosecution demands something of the same aptitudes as setting a new manufacture to work, or navigating a fleet. Hence our greatest inventors, as Watt, have been men of scientific calibre ; and our great experimental philosophers, as Davy, Faraday, Wheatstone, are the authors of some of our most valuable inven-

tions. The genius of manipulation belongs to some men, as Priestley, Cavendish, Wollaston, Faraday; and the genius of pure speculation belongs to others, Dalton, for example; while Newton seems to have combined both endowments in his own individual person.

It might be shown by many examples that in every subject implying *thought*, as distinct from mere memory, the power of identifying like things, through distance and disguise, is the main element of intellectual force. There can be no great ability without it; a certain amount is necessary even in Talent, as explained in the preceding chapter, although it is only when we take original power into consideration, that the highest reaches of the identifying faculty are involved. Whoever has stood forward in the history of the world, as opening up new regions of thought and speculation, as systematizing and consolidating the facts accumulated by many observers, as pushing forward existing doctrines into new applications, or supporting them by original arguments and illustrations, has been fitted for his work by a superior endowment in the seeing of resemblances. From Plato and Aristotle, to Kant and Hamilton, through a long series of Logicians, Metaphysicians, Theologians, Moralists, Political theorists, &c., as well as in the ranks of Mathematical and Physical science, the greatest minds have had this power as a part of their intellectual equipment. It depends upon the other powers of the mind, and especially on the local susceptibilities—the Senses, the Prudential, and the Sympathetic dispositions—whether great force of similarity shall culminate in a poet or in a philosopher, a politician or a theologian. It is singular to observe the same fundamental capability so controlled by its adjuncts, that in one mind it shall cover poverty of thought with luxuriance of style, and, in another, reveal profundity in the subject matter through barrenness in the expression, issuing in Alexander Pope or in Joseph Butler.

I have expressly cited this last name, because we could not have a better example of the influence that a man may exert upon the world, by being gifted beyond his fellows with the power in question. The very title of Butler's greatest work expresses the intellectual element involved in it; 'Analogy' is only another name for similarity. And as his purpose was to supply an additional vindication of the Christian religion, by showing the conformity of its supernatural parts with the natural order of the world, the carrying out of this purpose required a constant application of the power of discerning identities unfelt before. He professed to supply no new facts, but only new applications and juxtapositions of facts. 'If the reader,' he observes, 'should meet here with anything which he had not before attended to, it will not be in the observations upon the constitution and course of nature, these being all obvious; but *in the application of them.*' 'The proper force of the following Treatise lies in the whole *general analogy* considered together.' And a commentator remarks: 'This way of arguing from what is acknowledged to what is disputed, from things known to *other things that resemble them*, from that part of the divine establishment that is exposed to view to that more important part which lies beyond it, is on all hands confessed to be just. By this method Sir Isaac Newton has unfolded the system of nature; by the same method Bishop Butler has explained the system of grace.' The general scope of Butler's argumentation is well known. He meets all the difficulties alleged against revelation by parallel difficulties to be found in the scheme of nature; and in the discovery of these parallels lies his peculiar sagacity. The many observations scattered over his writings that have been esteemed for their profundity, owe their force to the flash of some hidden identity that gives a new aspect to an old problem. His celebrated vindication of Benevolence or Disinterestedness

as a part of Human Nature, in opposition to the moralists who resolved all human motives into a regard for self, consists in running a parallel, according to his wonted fashion. 'There is a natural principle of benevolence in man, which is in some degree to society *what self-love is to the individual.*' And after carrying out the parallelism into various minute particulars, he winds up by re-asserting it in another form; 'we were made for society, and to promote the happiness of it; *as* we were intended to take care of our own life, and health, and private good.'

That we may still better see the difference between profound thought and brilliant illustration, while both must repose upon a common foundation, let me quote a few passages from Pope's *Essay on Man*, and compare them with the style of Butler's writings.

'When the *proud steed* shall know why man restrains
His fiery course, or drives him o'er the plains;
When the *dull ox*, why now he breaks the clod,
Is now a victim, and now Egypt's god:
Then shall man's pride and dulness comprehend
His actions', passions', being's, use and end;
Why doing, suff'ring, check'd, impell'd; and why
This hour a *slave*, the next a *deity*.'

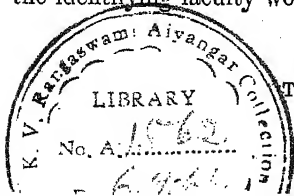
Here a difficulty in the scheme of human life is not met by other positions that *man* is placed in, and which, being quoted, might help to reconcile us to the difficulty, but by two comparisons poetically striking, but logically unsatisfying. Butler would never have gone to the inferior creatures for an analogy. He would have recalled to our view, as a general principle, of which numerous other examples could be given, 'the Government of God, considered as a Scheme, or Constitution, imperfectly comprehended,' and would have endeavoured to point out that the imperfect comprehension was a fact of the Natural World, as well as of the Supernatural. No human being really beset with earnest doubts would take any comfort

from Pope's couplets; many have found repose in Butler's reasonings.

Again, on the ruling Passion of the mind :—

' Yes, Nature's road must ever be prefer'd ;
Reason is here no *guide*, but still a *guard* :
'Tis hers to rectify, not overthrow,
And treat this passion more as friend than foe :
A mightier Pow'r the strong direction sends,
And sev'ral men impels to sev'ral ends.
Like varying winds, by other passions tost,
This drives them constant to a certain coast.'

We have here still a profuse employment of the power of Similarity in adducing lively illustrations, not only with very little force to instruct the mind, but with a tendency to distort the truth. Compare this with Butler's view of the human constitution as made up, first, of blind passions and affections, and next of rational self-love, and Conscience, acting in combination and conflict; and we shall be aware of the difference between a close observer of phenomena anxious to get at the truth, and a genius for language that cares principally for poetic effect, and takes the thoughts at secondhand, or from a mere superficial glance at the facts. Butler has handled, with great sagacity, Comparison, Benevolence, Resentment, and other emotions; and his method is to observe and compare human experiences, till he find what he thinks a consistent representation of the general character of each passion. His identifying faculty was employed to obtain truth, like a man of science in any other walk. Remove from his mind this as a foremost end; give him the local susceptibilities to colour and form, to words, cadence, and metre; and the same reach of the identifying faculty would have emerged in a poet.



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